

**SAMPLING IN TECHNO AND HIP-HOP**

# KEYBOARD

MAY 1994

**NEW GEAR**

**LUST!**

**SYNTHS!**

**SOFTWARE!**

**MULTIMEDIA STUFF!**

**25 HAMMOND LICKS  
YOU MUST KNOW!**

**VINTAGE ROLAND  
DRUM MACHINES!**

**7 PAGES OF SOUND REVIEWS!**

**JV-1000 TESTED!**

**WILL  
I EVER  
FIND TRUE  
HAPPINESS  
WITH 64X  
OVERSAMPLING  
& DELTA-SIGMA  
CONVERSION?**

US: \$3.95 CAN. \$4.50 U.K. £2.75



0 71896 48935 4

05



## Tony Banks & Phil Collins

### 01/Wfd Music Workstation

Two prime forces in Genesis, Tony Banks and Phil Collins, down on "The Farm," the band's ultra-modern studio in the heart of the English countryside.

Sound is what Genesis is all about, so they chose the 01/Wfd Music Workstation.

As they put it: "Korg has come up with a synth that has some of the most evocative sounds we've ever heard!"

The 01/Wfd Music Workstation from Korg. Because great sounds are what it's all about.

To learn more about the 01/Wfd and other Korg products, get a free subscription to Korg's 64 page news magazine by writing to Dept. K, Korg USA, 89 Frost St., Westbury, NY 11590



**KORG®** 01/W MUSIC WORKSTATION



# CONTENTS

## FEATURES

### 90 NAMM '94: NEW GEAR, NO FEAR

And bad beer. *Keyboard* weathers aftershocks in Anaheim to report on the latest synths, software, MIDI controllers, digital and acoustic pianos, and other relevant noisemakers. Plus celebrity fashion bulletins.

### 10 WORLD VIEW

Internet insurgents challenge the record industry. Mike Pinder finds life after the Moody Blues. Brazilian jazz pianist Eliane Elias goes back to classical. And the latest on Keith Emerson's arm surgery.

## SPECIAL REPORT: SAMPLING NATION

Provocative reflections from the front lines of the technological frontier.

### 31 HIP-HOP

Blunt talk from Del the Funkyhomosapien, Angel C., Dres of Black Sheep, and Erick Sermon on greedy artists, the virtues of low-tech, and the technique of freak.

### 45 TECHNO

The sound sculptors of Orbital, Vapourspace, Ultramarine, the Orb, and Aphex Twin trade thoughts on sampling in the postmodern world.

### 55 CONTEMPORARY CLASSICAL

Paul Dresher and Carl Stone ride the sampling wave across the high ground of experimental composition.

### 65 HOT HAMMOND LICKS

Get the *fonk* back with these riffs, licks, and hits, guaranteed to meet all standards for B-3 bluesification and jazzosity.

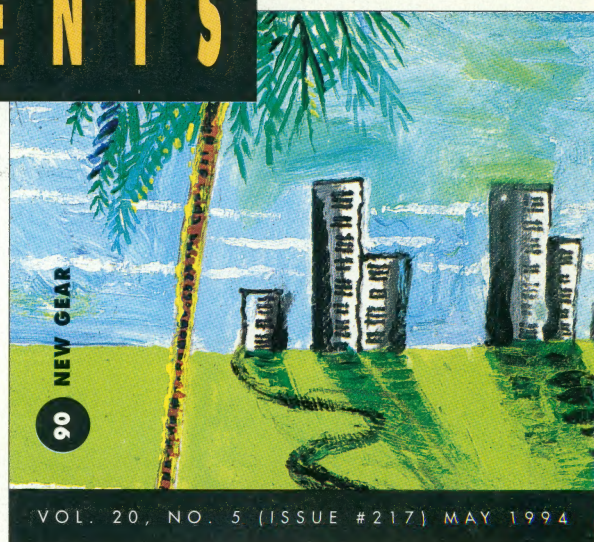
### 81 GIVEAWAY

Win a free Yamaha CLP-123 Clavinova, cited for "best piano sound" and "best action" in the *Keyboard* digital piano shootout. Total value: \$3,945!

### 82 VINTAGE SYNTHS: ROLAND BEAT BOXES

Jam down Memory Lane with this loving look at three epochal drum machines: Roland's CR-78, TR-808, and TR-909.

**Cover:** Illustration by Steven Wacksman



## DEPARTMENTS & COLUMNS

### 4 LETTERS

### 19 CREATIVE OPTIONS

Connor Freff Cochran considers rules for creativity.

### 25 IN REVIEW

ABWH, Marillion, FMob, Herbie Hancock.

### 140 QUESTIONS

The evolving Ober-Moog, and affordable K5 sounds.

### 141 DISCOVERIES

### 142 REEL WORLD NOTEBOOK

Jeff Rona survives the seismic shuffle.

### 146 INSIDE THE MUSIC

Dave Stewart dares to dream.

### 154 CLASSIFIED ADS

### 160 ADVERTISER INDEX

## SAMPLING NATION



### 82 VINTAGE SYNTHS

## KEYBOARD REPORTS

### 112 SOUNDS

East-West Dance/Industrial II, Best Service's Barbara Dennerlein B-3 samples, Hollywood Edge's L.A. Riot, Vol. 1, and more.

### 120 MIROSLAV VITOUS SYMPHONIC ORCHESTRA SAMPLES

CD-ROM library.

### 128 ROLAND JV-1000

Synthesizer/sequencer workstation.



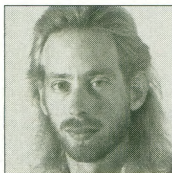
### 128 ROLAND JV-1000







DOMINIC MILANO



## SIT ON A POTATO PAN, OTIS

**T**HE CRIME WAS ONE OF THOSE TRULY hideous episodes in the life of music journalists. Despicable yet unavoidable under the circumstances. The victim, our third-party sounds review column, done in by a confluence of the usual deadline dog-fighting, the inevitable chaos of corporate relocation, and our silly notion that nothing is worth doing unless you do it right.

It's not like we're looking at five to ten in Leavenworth, but there's no denying that since moving from Cupertino to San Mateo months ago one of the most popular sections of *Keyboard* has been conspicuously absent. Not deep-sixed, mind you. *That* stupidity would be worthy of life imprisonment with cruel and unusual torment thrown in for good measure. No, Sounds has been closed for renovation, a heinous crime for which we should be covered in pickle juice and creosote while locked in a room with a dozen obnoxious 16-year-olds who tell bad pun jokes all day long.

It's no excuse, but Sounds was in dire need of a rethink. The goal being to add a further degree of objectivity (or maybe fairness is a better word) to a desperately subjective topic. What we'd always done in the past was hand a pile of sounds to a staff writer and say, "Have at 'em." Over the years, we experimented with the amount of detail we went into in each review, thinking alternately "more detail equals a more informed reader" or "too much detail bogs the reader down, keep the writeups to the essentials — who, what, how much, and is it any good." It was the last bit that raised questions from the staff and from a handful of sound developers.

The most vocal of the latter was Nate Goyer from Eye & I Productions, who over lunch with Senior Associate Editor Jim Aikin and me explained his concerns not with negative reviews but with our review methodology. "How could it be fair for only one set of ears to listen to

a disk of sounds?" Nate asked. "Wouldn't it be better if you could get multiple opinions? It's one thing to point out obvious technical goofs like bad loops and such, but isn't one person's greatest sound in the world, another's worst?"

In fact, we'd wrestled with the same question for quite some time, but always ran smack into the wall of practicality. Our old offices were set up such that most reviews of third-party sounds were done after office hours in our staff's home studios. And it was difficult if not impossible to arrange for multiple players to get in on each critique, despite the fact that it has always been common practice at *Keyboard* Central to solicit multiple ears and their accompanying opinions in reviews of hardware and software. We had done the same for the third-party sampled pianos reviewed in our December '93

Buyer's Guide on Digital Pianos.

The solution to our dilemma presented itself when we moved into our San Mateo digs. Because our building houses a variety of businesses besides our own, our landlord wasn't too thrilled by the notion that we test products that make noise. Loud noise. We even ran some real-world demos of how noisy we'd be. *Keyboard* Technical Editor Michael Marans and *Guitar Player* Technical Editor Andy Widders-Ellis cranked a Marshall amp set on 4 and a Gibson SG (*GP* regularly tests amps by winding them up to 11) while we wandered the five floors above us to see how much noise pollution there was. Since things were very audible all the way to the top of the building, we got our corporate purse holders to spring for an in-house recording studio. (Makes your heart bleed, don't it?)

The snafus started, however, when the room wasn't finished on time. In fact, it's still not out-fitted as a functional recording facility, but it'll do for the purpose of engaging a lot of ears in the process of reviewing sounds.

So call us poo-poo heads, wankers, wimps. We put the Sounds column on hold because we didn't feel right about continuing it without being able to involve a lot of ears in each review. And all we can offer as reparation is the expanded (seven pages this month) Sounds section. Take note, though. Each review this month is signed by a single person (including, in case you're curious, *Bass Player* Associate Editor Karl Coryat), but don't let that confuse you the way it did me. Each product was listened to by a bevy of players and the conclusions were reached by consensus — a new tradition that starts now.

We hope you benefit from our informed opinions. You might disagree with us. After all, new methodology or not, everybody's got different ears. We're happy to tell you what ours think, but don't be afraid to use your own. ■

# KEYBOARD

EDITOR: Dominic Milano  
 MANAGING EDITOR: Tom Darter  
 SENIOR ASSOCIATE EDITORS: Jim Aikin  
 Robert L. Doerschuk  
 TECHNICAL EDITOR: Mark Vail  
 ASSISTANT EDITORS: Ernie Rideout  
 Greg Rule  
 EDITORIAL ASSISTANT: Debbie Greenberg  
 CONSULTING TECHNICAL EDITOR: Michael Marans  
 EDITORIAL INTERNS: Mark Grey  
 Steve Santana

---

VICE PRESIDENT/PUBLISHER: Pat Cameron  
 ASSOCIATE PUBLISHER: David Williamson

---

ART DIRECTOR: Richard Leeds  
 GRAPHICS ASSOCIATES: Rick Eberly  
 Elizabeth Ledgerwood

---

ADVERTISING DIRECTOR: Vicki Hartung  
 ASSOCIATE AD DIRECTOR: Valerie Pippin  
 AD ACCOUNT REPRESENTATIVE: Dan Fernandez  
 ADVERTISING SALES ASST.: Debbie Miller  
 CLASSIFIED AD MANAGER: Amy Miller

---

GROUP AD SALES DIRECTOR: Ed Sengstack  
 PRODUCTION: Peter Mrzyglocki (Manager)  
 CIRCULATION: Perry Fotos (Marketing Director, Subs.),  
 Susan Ito (Asst. Marketing Manager, Subs.),  
 Paulette Johnson (Fulfillment Manager),  
 Rosario Perez (Assistant)  
 SINGLE COPY SALES: Scott Dunayer (Director),  
 Cindy Baldasano (Assistant)  
 MARKETING: Deborah Horowitz (Manager),  
 Cheryl How (Expositions Manager),  
 Gregory Isola (Projects Coordinator),  
 John Ueland (Communications Designer),  
 Mack Cage (Administrative Assistant)  
 BUSINESS MANAGER: Karin Cunningham  
 ADMINISTRATION SUPPORT: Peggi Clapham, Judy  
 Cronk, Kim Duncan, Chris Eaton

#### ADVISORY BOARD:

Tony Banks, Michael Boddicker, Joanne Brackeen,  
 Dave Brubeck, David Burge, Wendy Carlos,  
 Suzanne Ciani, Thomas Dolby, George Duke,  
 Danny Elfman, Keith Emerson, Brian Eno, Larry  
 Fast, Christopher Franke, Philip Glass, Jan Hammer,  
 Bill Irwin, Jimmy Jam, Elton John, Artie Kane,  
 Igor Kipnis, Ruth Laredo, David Mash, Michael  
 McDonald, Marian McPartland, Max Morath,  
 Mark Mothersbaugh, Peter Nero, Anthony New-  
 man, Terry Riley, Jimmy Smith, Art Van Damme,  
 Rick Wakeman, André Watts, Roger Williams

**mf Miller Freeman, Inc.**  
 A MEMBER OF THE UNITED NEWSPAPERS GROUP

CHAIRMAN OF THE BOARD: Graham J.S. Wilson  
 PRESIDENT/CEO: Marshall W. Freeman  
 EXECUTIVE VICE PRESIDENT/COO: Thomas L. Kemp  
 SENIOR VICE PRESIDENTS: H. Verne Packer,  
 Donald A. Pazour, Wini D. Ragus  
 VICE PRESIDENT/CFO: Warren (Andy) Ambrose  
 VICE PRESIDENTS: Charles H. Benz (Administration),  
 Andrew A. Mickus (Production),  
 Jerry M. Okabe (Circulation)

VOL. 20, NO. 5 (ISSUE #217) MAY 1994

Please direct all advertising and editorial inquiries to:  
**KEYBOARD**, 411 Borel Ave., Suite 100, San Mateo, CA 94402.  
 Telephone (415) 358-9500; FAX (415) 358-9527; TELEX #4994425.  
**KEYBOARD** (ISSN 0730-0158) is published monthly by Miller Free-  
 man, Inc., 600 Harrison St., San Francisco, CA 94107. Telephone  
 (415) 905-2200; FAX (415) 905-2233; TELEX #278273.  
 CompuServe: 72662,136. The Web: keyboard. PAN: Keyboard.  
 For subscription and postal information, see page 168.





(Read this in a low voice with reverb)

# FIRST WE INVENTED THE MUSIC WORKSTATION

*The M1, the world's first "music workstation."*

# THEN WE MADE IT BIGGER

*The T1, a more complete version of a powerful idea.*

# THEN WE MADE IT BETTER

*The 01/Wfd, still the world's leading workstation.*

Buy Now and  
receive \$525  
in accessories  
**ABSOLUTELY FREE!**  
(Ask your dealer  
for details)

# AND NOW



## The New X3 Power Music Workstation

Korg, the acknowledged leader in music workstations, is proud to introduce another breakthrough loaded with the highest quality Korg sounds and features at an unprecedented price — the X3 Power Music Workstation.

The X3 has 536 phenomenal sounds featuring a new acoustic piano plus new organs, guitars, drums and a

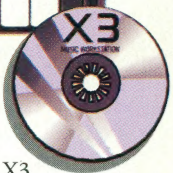
collection of orchestral and ethnic instruments from all over the world.

It's equipped with a powerful 16 track, 32,000 event sequencer. And another breakthrough for its class — *a built-in disk drive*. Plus Korg's Dynamic Digital Multi-Effects System with 47 types of effects. It also has General MIDI with Standard MIDI File compatibility, too.

If you've been looking for the most music workstation for the money, go to your Korg dealer and experience the powerful new X3.

Discover how far you can take your music with a special CD of original sequences created with the X3 that also includes an X3 CD ROM Demo (Mac Compatible). Just send \$2.95 for shipping and handling with your name and address to X3-CD, Korg U.S.A., 89 Frost St., Westbury, NY 11590.

Please send check or money order and allow four to eight weeks for delivery. Offer good in the U.S. only until May 31, 1994 or while supplies last.



**KORG**  
**X3**  
Power MUSIC WORKSTATION



## How're We Doin'?

Your magazine is a breath of fresh air! It clears the muck and promotes truth. Carry on, *Keyboard*. The *Starship Enterprise* needs you, is humbled by you, and is extremely humored by your healthy approach to creativity. You are deeply and gratefully appreciated.

Scott Brubaker  
Austin, TX

After more than ten years of viewing the monthly bitch, gripe, piss, moan, whine, and complain festival you run under the heading "Letters," I thought I'd offer the following slogan — my personal plea for the '90s — as a possible subhead for that section: "Less Noise . . . More Signal!" Dare we hope?

G. M. Montalbano  
Oakland, CA

I see that to really enjoy *Keyboard* you need to be in a prog rock band, or be some jazz guy, or run a new wave sequencer. I play industrial, and I bought a Korg M1 because the dealer let me do some experimentation on it, not because of any reviews I read in your magazine. I also hate vintage synths. Sure, they're cheap, but my Wavestation SR can do wave sequences that blow away anything you can do with a DX7. I feel more and more alone as I read every issue. The Roland district manager even told me that less than one percent of the keyboardists out there do the kind of music I do, so I know this letter won't do any good. To all the progs who read this, "Keep on rockin' in the popular world." P.S.: I do still read your magazine.

Pete Greko  
No address given

To the art department: Great illustrations!  
Frank Hsu  
Temple City, CA

### Trent Reznor/Nine Inch Nails

I was bored with *Keyboard* until your interview with the NIN guy [Mar. '94].

Sam Templeton  
Somewhere in Texas

Trent Reznor may be a successful musician and therefore worth interviewing, but would it really compromise your integrity to edit out some of his shocking and vulgar language? Actually, I wouldn't have minded if you had edited him entirely out of the magazine.

Mark Stivers  
Sacramento, CA

Before I read your interview with Reznor, I was skeptical about his integrity. Now I'm not only a fan of his music, I also respect his opinions.

3E/TCT, Deep End  
Skinny Records  
Toledo, OH

I was very impressed not only with your excellent article on Trent Reznor, but with the idea



that *Keyboard* has a broad enough spectrum to venture into a world of music that has yet to earn the recognition or respect from the upper-class media. I'm glad that you've realized that there is so much music outside of the mainstream that deserves recognition. Trent Reznor is a brilliant, talented musician with a style all his own. He deserves the attention you've given him.

Ken Davidson  
Lafayette, CA

### Son of Creative Options

The timing of Connor Frefk Cochran's return to *Keyboard* [Mar. '94] is truly propitious. It occurs as my subscription expires.

Charles Robert Futch  
Tallahassee, FL

Let me quote Oliver Wendell Holmes: "Man's mind, once stretched by a new idea, never regains its original dimension." This is Frefk's role in your magazine. He is a rare, rare jewel, with wisdom and maturity beyond his young years. I enjoy his triumphs, but I learn more from his mistakes. He writes not just about music and art, but about life. As long as he has something to say, if you let him say it, maybe we will all be better people as well as better musicians.

John J. Plosay III, M.D.  
Redondo Beach, CA

## The Piano Book

[Much of our Dec. '93 article on how to buy an acoustic piano was written through consultation with Larry Fine, author of *The Piano Book*. Widely regarded as the most authoritative text on pianos, Fine's book includes analyses of specific instruments, brand by brand, an approach not guaranteed to win the author friends throughout the industry. A letter from Robert J. Jones, head of the U.S. branch of Samick, a Korean piano manufacturer, bears this out in our Mar. '94 issue. Jones characterizes *The Piano Book* as "not scientific. . . . It is, in fact, an entirely subjective collection of opinions of his and a select handful of his friends." This month, Fine offers a response to Jones's critique.]

Analyzing the tone, touch, and construction quality of a piano and forecasting how well it will hold up under diverse conditions of use are matters that necessarily involve a combination of subjective opinion and factual observation, not just engineering experiments, public opinion polls, and the like. In that sense, strictly speaking, my brand reviews are not "scientific," nor could they be. But that doesn't mean they don't contain elements of objectivity. . . . For the second edition of my book, for example, about 50 technicians did detailed written examinations of approximately 1,000 pianos. Many technicians were also interviewed concerning their experiences with and opinions of the brands they serviced. The technicians were chosen for their professional abilities and experience, not because they were my "friends." (Most, in fact, were not my personal friends.) The pianos examined were those that randomly came up for servicing during a particular three-month period. The survey form used was quite specific and detailed. Although this method may not meet Jones's criteria for "scientific," it is certainly a lot more objective and useful as a way of acquiring information for consumers than relying on statements made by piano manufacturers and dealers.

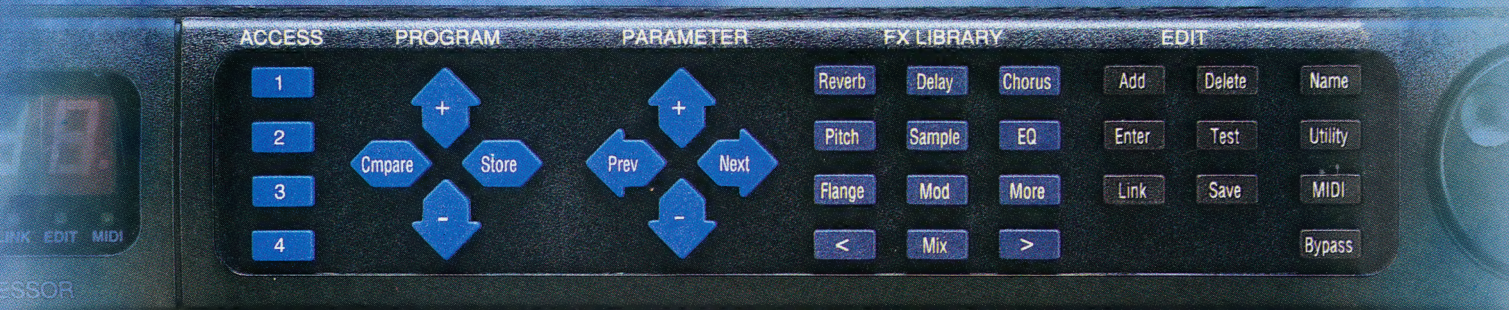
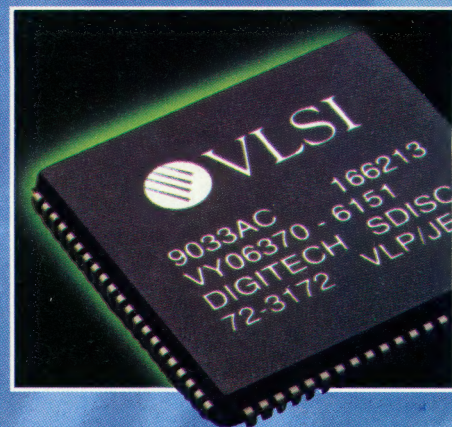
Jones also states that "in many cases, [the technicians] have had very little contact with particular brands, and their opinions are based on old as well as newly produced instruments." While it is of course true that not all technicians are equally experienced with all brands, it is *not* true that the reviews of Samick and other major brands were based on opinions of technicians who had little contact with those brands. Many of the technicians on my team service new pianos extensively, often concentrating on just one or two brands, and are very qualified to make observations about those brands. And because pianos must show their ability to hold over time, the pianos examined were anywhere from zero to five years old. I would not call five-year-old pianos "old."

In addition to being untrue, this swipe at

Send correspondence to: Letters, *Keyboard*, 411 Borel Ave., Suite 100, San Mateo, CA 94402.



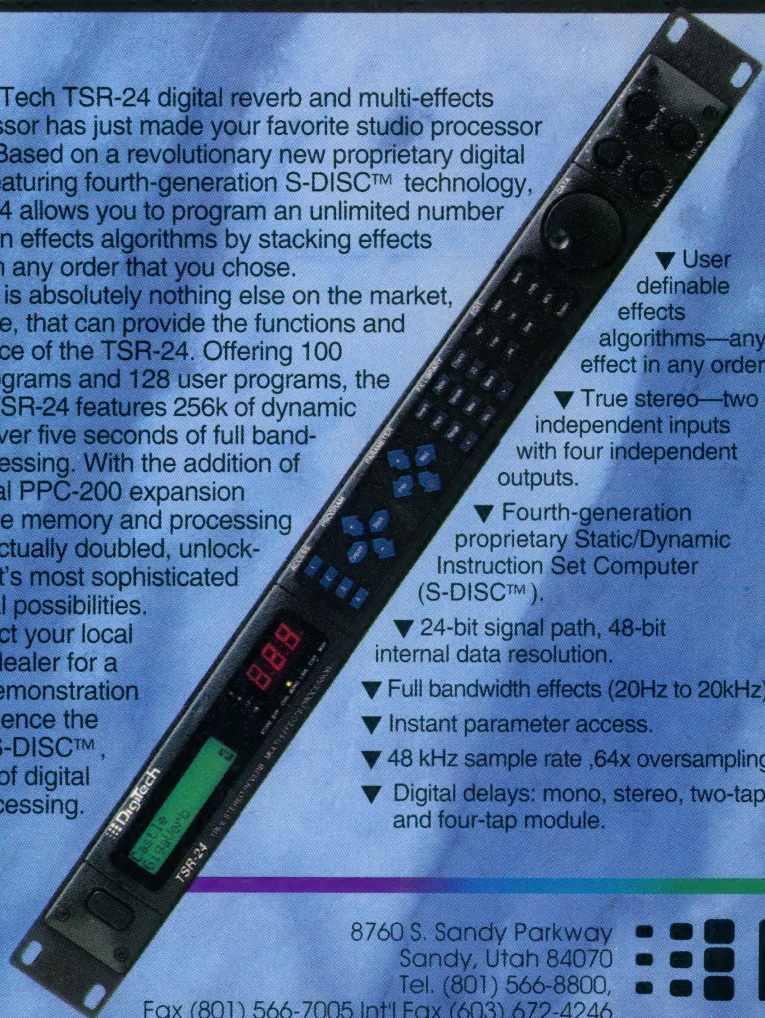
# TSR-24: THE POWER OF S-DISC™ CONTINUED...



**T**he Digitech TSR-24 digital reverb and multi-effects processor has just made your favorite studio processor obsolete. Based on a revolutionary new proprietary digital platform featuring fourth-generation S-DISC™ technology, the TSR-24 allows you to program an unlimited number of your own effects algorithms by stacking effects modules in any order that you chose.

There is absolutely nothing else on the market, at any price, that can provide the functions and performance of the TSR-24. Offering 100 factory programs and 128 user programs, the powerful TSR-24 features 256k of dynamic RAM for over five seconds of full bandwidth processing. With the addition of the optional PPC-200 expansion module, the memory and processing power is actually doubled, unlocking the unit's most sophisticated operational possibilities.

Contact your local Digitech dealer for a TSR-24 demonstration and experience the power of S-DISC™, the future of digital signal processing.



- ▼ User definable effects algorithms—any effect in any order.
- ▼ True stereo—two independent inputs with four independent outputs.
- ▼ Fourth-generation proprietary Static/Dynamic Instruction Set Computer (S-DISC™).
- ▼ 24-bit signal path, 48-bit internal data resolution.
- ▼ Full bandwidth effects (20Hz to 20kHz).
- ▼ Instant parameter access.
- ▼ 48 kHz sample rate, 64x oversampling.
- ▼ Digital delays: mono, stereo, two-tap and four-tap module.

- ▼ Studio quality reverbs: Gigaverb™, Bigverb™, MFX reverb, gated and reverse reverbs.
- ▼ Digital samplers: mono and stereo with multiple sampling (up to 5 seconds, expandable to 10 seconds at full bandwidth).
- ▼ Four-octave pitch shifter: mono, dual and stereo pitch shifting; mono, dual, stereo, dual-stereo and four-voice detuning.
- ▼ Choruses and flangers: mono, stereo, dual, dual stereo and four-phase.
- ▼ Arpeggiators: mono and stereo.
- ▼ Mixers: two, three, four and eight by one—mono mixing; two, three, four, five, six and eight by two—stereo mixing.
- ▼ Programmable equalizers: six, ten and fifteen band graphic EQ; one, three and five band parametric EQ and high/low-pass filter.
- ▼ Noise reduction: S-DISC Silencer™ noise reduction and noise gate.
- ▼ Tremolo, auto panning and much, much more.

8760 S. Sandy Parkway  
Sandy, Utah 84070  
Tel. (801) 566-8800,  
Fax (801) 566-7005 Int'l Fax (603) 672-4246

# DigiTech

**H** A Harman International Company



## LETTERS

*The Piano Book* was uncharacteristic of Jones, who in the past has been most gracious in accepting criticism of Samick pianos, even admitting at the time that the book was written (1989-90) that some of the criticisms were accurate. Obviously Samick has been hurt by my review, which was written just as the company was starting to clean up its act — a fact that was noted in the review. How much more helpful it would have been if Jones had instead written that he wished *The Piano Book* were updated more frequently, so as to properly reflect the improved quality of Samick pianos.

The third edition of *The Piano Book* will be published in the fall of 1994.

Larry Fine  
Boston, MA

### Enough Amiga, Already

I have been tolerant with letters about the Amiga, but Sean Henderson's letter about how great the Amiga is [Mar. '94] was the last straw. Plenty of great software? If you're into video games. A well-designed piece of hardware? Two joystick ports says it all. Sure, you can do a lot with it — after you buy all kinds of expensive third-party hardware add-ons, which are commonplace on industry standard machines (SCSI ports, for instance). As far as multitasking, if you consider being able to format a diskette and little more (if even that) while an application is running, sure. And the Amiga 500 is the only computer ever to reject chips like a transplant patient rejects donor organs; heat from the absence of a cooling fan causes the motherboard to flex and work chips out of the sockets.

I have only one thing to say to all of you sniveling, whining Amiga owners: Guru Meditation, which you'll recognize as a frequently-seen system crash message. It's no mystery why it's so hard to find good things to say about Commodore's "flagship" computer. I soon got so fed up with that piece of junk that I said "Adios, Amiga." *Keyboard* should do the same.

Brad Salinas  
Austin, TX

### Physical Modeling

I've been watching the development of physical modeling for some time, so I'm glad to see your coverage of this "next big thing" [Feb. '94]. But I have a couple of bones to pick. First, I do not want my electro-acoustic instrument to be anything but an electro-acoustic instrument. We have our own beautiful nuances, which are unattainable in the purely acoustic realm. Clarinetists make great clarinet music with clarinets. Electro-acoustic musicians make great electro-acoustic music with electro-acoustic instruments. Emulation of other instruments is a great way to begin a new instrument design, but it's ludicrous as an ultimate goal. Electro-acoustic synthesis isn't cheap imitation.

As far as practice goes, I strongly disagree that any electro-acoustic instrument requires less practice than an acoustic instrument. Electro-acoustic instruments are no different from

other instruments. Naïveté is naïveté: It has its place in art, but it is not craft. Craft takes lots of practice, no matter what instrument you play.

Don Malone  
Sharon, WI

Your article on physical modeling left me wondering if we are approaching this powerful new concept the right way. If we model real-life instruments by breaking down the sound-generating process into separate building blocks, we will probably discover that the action of these blocks, like the "throat" parameter in the Yamaha VL1, is more or less constant and predictable, and thus modellable by a relatively sophisticated filter. In other words, we can use less expensive hardware for it.

Unlike true physical modeling synthesis, this approach would make it possible to create new classes of sounds by connecting building blocks that are totally incompatible in real life. If a block is just a filter that affects the harmonic amplitudes of an incoming signal in a given mathematical way, no law can restrict us from taking a block (say, a plucked electric guitar's amplified string vibration), process it through a clarinet's "throat" parameter, resonate a giant glass wind chime's body with the result, and finally modulate the whole thing with a fourth component that stimulates the effect of a depressed sustain pedal on a piano that's rotating around its axis at the speed of a Leslie speaker's horn. (Hint: Don't try this at home!) I bet this patch would even sound good.

Lucky guys, these developers. They play all day with ideas like this and even get paid for it.

George Kopeckzy  
Honolulu, HI

A conversation recorded on the first session using a physical modeling keyboard:

Producer: "Can you get a clarinet sound on that thing?"

Keyboardist: "Why, sure." He plays the sound.

Producer: "That sounds like shit."

Keyboardist: "Maybe so, but if the computer says that's what a clarinet sounds like, it must be the clarinet that's wrong."

Brian Gascoigne  
London, England

### Universal Patch Compatibility

Steve Salani's Guest Editorial [Feb. '94] is an admirable attempt to define a standard patch format. Unfortunately, his proposal has some serious flaws. If ASPN is supposed to be the patch format for the "new generation of digital instruments," then it's downright embarrassing that it cannot handle physical modeling, the subject of the issue's cover story. This is a kind of synthesis that must be discussed in terms of physical properties rather than oscillators, filters, and LFOs. Physical modeling could possibly be handled inside the VFOs. But that VFO would be so versatile that a non-physical-modeling synthesizer could not hope to duplicate its output, and that's the end of patch compatibility between instruments.

ASPN provides only a subset of what is already available in today's synthesizers. For example, the 256-stage envelope generator of the Kurzweil 250 cannot be simulated by the "16 linear segments" of a TFG. Neither can four VFOs make a 127-harmonic additive instrument, such as the Kawai K5, and still hope to be compatible with other non-additive instruments. How can ASPN be the format of the future if it cannot handle the present?

What can be done about instruments with features beyond those in the ASPN standard? Will these instruments be declared ASPN-compatible? If so, compatibility is lost with other ASPN-compatible instruments that cannot duplicate the extended features. If not, then instruments must be limited to ASPN's features if they are to remain compatible.

Salani reveals a bias toward analog synthesis, which is not the mindset for designing a format of the future. There's no need to have both LFOs and TFGs: An LFO is merely an envelope generator set to infinite repeat. There's no need for a random noise source, because its function can be duplicated by a fast LFO and a VFO. A more powerful and futuristic approach would be to provide a large (unlimited?) number of arbitrary function generators that can be applied to any sound parameter, along the lines of what IRCAM's FORMES does. This method automatically gives you LFOs, TFGs, RNSes, SAHs, MLTs, TABs, DELs, and ATTs, plus more, using a single abstraction.

In arguing that ASPN does not "impose an undesirable limit on the range and quality of available sounds," Salani claims that "there is a finite limit to the number of different timbres the ear can distinguish; if an instrument will produce five billion timbres, is there any point in making a machine that will produce ten billion?" Yes! I have an Oberheim Matrix-12 that can make well over five billion timbres, but none of them sounds like a Yamaha DX7 or a Korg Wavestation.

"As-yet-undiscovered synthesis techniques may be conceptually unique," Salani notes, "but whether they will contribute unique new timbral resources is debatable." This misses an important point: personal preference. Two different synthesis methods might create the same timbre, but different people like to work in different ways. Witness computer programming: Any of today's programming languages can create any computable function. So why doesn't everyone use the same language? Because different languages/approaches are better suited to getting different results. Similarly, future approaches to synthesis might not "contribute new timbral resources," though I suspect they will, but they can legitimately fall outside of ASPN's boundaries and still be useful.

Creating patches is a lot like computer programming, but with more limited resources. There is no standard that a program written for one computer should run identically on all others. Why? Because different computers have different features. Similarly, synthesizers have unique resources, and I strongly suspect that

*Continued on page 76*



# YEARS OF BUILDING LARGE STUDIO CONSOLES HAVE HELPED US FOCUS ON WHAT YOU NEED IN AN 8-BUS BOARD.

**TOPAZ.** Our reputation for innovation and excellence in high-end multitrack consoles affords us a singular perspective on the art of recording and mixdown.

Insights gleaned over the years have led to Topaz 24, a 48-input inline console designed with the sonic integrity and smooth, responsive operation of our most prestigious

recording consoles.

**MORE EQ.** Others may claim to offer "British EQ," but we deliver the real thing, and more of it. Not only Soundtracs' world-class 4-band EQ with dual swept mids, but also dedicated EQ on all tape monitors without compromising your primary equalization.

**MORE CONTROL.** In addition to

a logical, fully implemented control surface, Topaz includes SOLO and MUTE functions on all tape monitors, a critical feature in cutting through the mix to isolate problems, something our competitors may have overlooked.

**MORE FLEXIBILITY.** Our "Floating Bus" design enables you to route Topaz's 8 group outputs to all 24 inputs of your tape

machine(s) without repatching. A comprehensive meter bridge is also available as an option for both the 24- and 32-channel Topaz.

**MORE AUTOMATION.** When it's time to automate, we give you the professional option of 12-bit, high-resolution VCA/Mute automation with 4,096 increments on each fader to eliminate "zipper noise."

Topaz from Soundtracs. Our

track record with big boards allowed us to design the first 8-bus console with everything you need. For more information, call (516) 932-3810 or fax to (516) 932-3815.

**TOPAZ BY  
SOUNDTRACS**  
Surbiton, Surrey, England

Suggested list price for Topaz 24-channel: \$3,995; Topaz 32-channel: \$4,995. Soundtracs is exclusively distributed in the U.S. by Samson Technologies Corp., P.O. Box 9068, Hicksville, NY 11802-9068. ©1994 SAMSON



**ALESIS**  
**MONITOR ONE™**  
STUDIO REFERENCE MONITOR

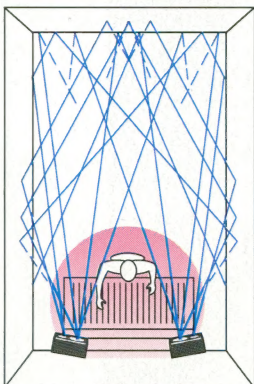
# The Truth From

**T**he truth...you can't expect to find it everywhere you look, or *listen*. But when mixing music, hearing the truth from your monitors will make the difference between success and failure. You'll get the truth from the **Alesis Monitor One™ Studio Reference Monitor**.

## Room For Improvement

Fact: most real-world mixing rooms have severe acoustical defects. Typical home and project studios have parallel walls, floors and ceilings that reflect sound in every direction. These reflections can mislead you, making it impossible to create a mix that translates to other playback systems. Trying to solve the problem with acoustical treatments can cost megabucks and still might not work. But in the near field, where direct sound energy overpowers reflections, reverberant sound waves have little impact, as shown in the illustration. The Monitor One takes full advantage of this fact and is built from the ground up specifically for near field reference monitoring.

Working close to the sound solves the room problem but creates other problems, such as high frequency stridency and listener fatigue (typical of metal-dome and composite tweeter designs). Our proprietary soft-dome pure silk tweeter design not only solves these problems, but delivers pure, natural, incredibly accurate frequency response, even in the critical area near the crossover point (carefully chosen at 2500 Hz).



Does your living room double as your mixing suite? The pink area in the illustration shows where direct sound energy overpowers reflected waves in a typical mixing room. The Monitor One helps eliminate such complex acoustic problems by focusing direct sound energy toward the mixing position, instead of the love seat.

## The Truth From Top To Bottom

The Monitor One gives you all the truth you want in the mids and highs, but what about the low end? You probably know that the inability to reproduce low frequencies is the most common problem with small monitors. Most of these speakers have a small vent whose effect at low frequencies is nullified by random turbulence, or they're sealed, which limits the amount of air the driver can move. Such speakers give disappointing results in their lowest octave.

The Monitor One overcomes wimpy, inaccurate bass response with our exclusive SuperPort™ speaker venting technology.

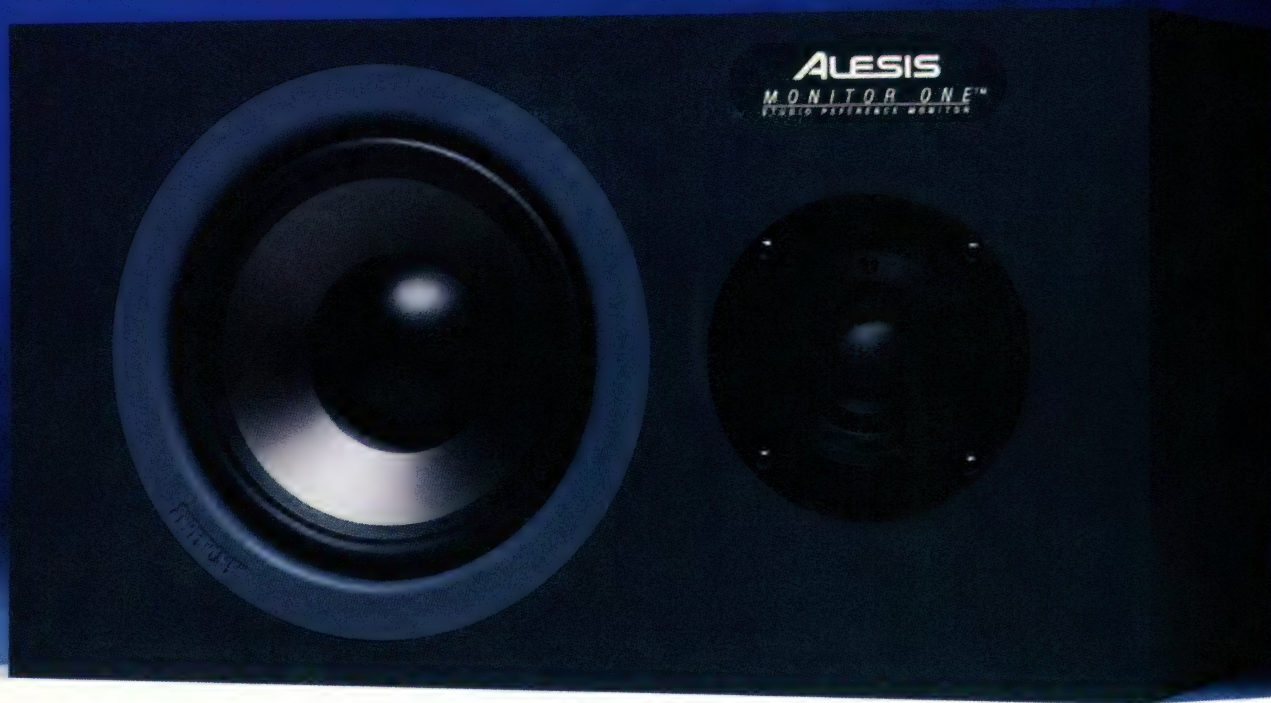
The ingenious design formula of the SuperPort eliminates the choking effect of small diameter ports, typical in other speakers, enabling the Monitor One to deliver incomparable low frequency transient response in spite of its size.



Alesis SuperPort™ technology gives you the one thing that other small monitors can't: incredibly accurate bass transient response. No, the SuperPort doesn't have a blue light, but it makes the picture look cool.

The result? A fully integrated speaker system that has no competition in its class. You'll get mixes that sound punchier and translate better no matter what speakers are used for playback. Whether you mix for fun or for profit, you want people to hear what *you* hear in your mixes. The Monitor One's top-to-bottom design philosophy is a true breakthrough for the serious recording engineer.





# Left To Right

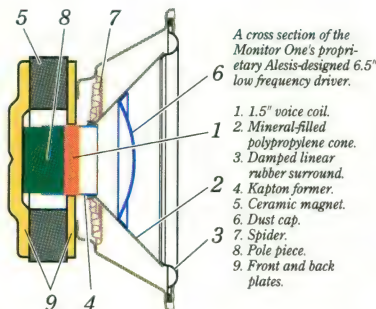
## Power To The People

High power handling is usually reserved for the big boys. While most near field monitors average around 60 watt capability, the Monitor One handles 120 watts of continuous program and 200 watt peaks...over twice the power. Also, its 4 ohm load impedance allows most reference amplifiers (like the Alesis RA-100™) to deliver more power to the Monitor One than they can to 8 ohm speakers. That means the Monitor One provides higher output, more power handling capability, and sounds cleaner at high sound pressure levels.

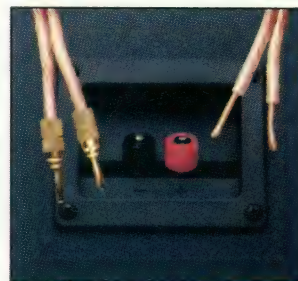
If you like to mix loud, you can.

## The Engine

Our proprietary 6.5" low frequency driver has a special mineral-filled polypropylene cone for stability and a 1.5" voice coil wound on a high-temperature Kapton former, ensuring your woofer's longevity. Our highly durable 1" diameter high frequency driver is ferrofluid cooled (costly, but it's the best way to cool a tweeter), to prevent heat expansion of the voice coil which inevitably leads to loss of amplitude and high



frequency response. Combined, these two specially formulated drivers deliver an incredibly accurate, unhyped frequency response from 45 Hz to 18 kHz,  $\pm 3$  dB. The five-way binding posts provide solid connection, both electronic and mechanical. We even coated the Monitor One with a non-slip rubber textured laminate so when your studio starts rockin', the speakers stay put. Plus, it's fun to touch.



The Monitor One's five-way binding posts accept even extra-large monster wire, banana plugs and spade lugs. Hookup is fast, easy and reliable.

## The New Alesis Monitor One™

You don't design good speakers by trying hard. It takes years and years of experience and special talents that only a few possess. Our acoustic engineers are the best in the business. With over forty years of combined experience, they've been responsible for some of the biggest breakthroughs in loudspeaker and system design. The Monitor One could be their crowning achievement. They're the only speakers we recommend to sit on top of the Alesis Dream Studio™.

See your Authorized Alesis Dealer and pick up a pair of Monitor Ones. Left to right, top to bottom, they're the only speakers you want in *your* field.

The Monitor One is the speaker for the Alesis Dream Studio™. Need more information about the Alesis Monitoring System? Call 1-800-5-ALESIS. See your Authorized Alesis Dealer. Monitor One, SuperPort, RA-100 and the Alesis Dream Studio are trademarks of Alesis Corporation. © Alesis is a registered trademark of Alesis Corporation.

Alesis Corporation 3630 Holdrege Avenue Los Angeles CA 90016







ASSEMBLED BY ROBERT L. DOERSCHUK

## CAREER UPDATE

Cecil Taylor and Philip Glass mix with a literary crowd at *Beats and Other Rebel Angels: A Tribute to Allen Ginsberg*, scheduled for July 3-9 at the Naropa Institute in Boulder, Colorado. Other participants in the conference include Ken Kesey,

Michael McClure, Lawrence Ferlinghetti, and Ed Sanders. For further information, call Sue Seecof at (303) 546-3510. . . . *Skinny Puppy* synthesist Cevin Key was seriously injured in an accident on the set of a scene from the upcoming film *Doom Generation*. Key, playing the role of a thug brawling on the hood of a car during a drive-in movie,

fractured his kneecap and left arm and suffered severe lacerations on his face and leg in a fall. The band's album-in-progress has been put on hold during Key's recuperation. . . . Though he was on top of the New York studio keyboard scene, Jason Miles nearly succumbed to a bout with panic and anxiety disorder in late '92 and early '93. His depression grew so severe at one point that he withdrew into his basement for about a week. Fortunately, Miles has recovered, thanks in large part to the support of his family and the help of a therapist. Today, with his solo album, *World Tour*, poised for U.S. release on the Lipstick label, Miles is back to full speed. His upcoming projects include music for *People*, an hour-long animated special scheduled to be shown over the Disney network in early '95, a solo pro-

ject with Ivan Lins, and *Blue Suede Sneakers*, a collection of Elvis Presley songs for children. . . . Diane Schuur handles piano parts and shares vocals with B. B. King on their duo album for GRP, slated for a May 10 release. . . . Congratulations to Steven M. Martin, whose film, *The Electronic Odyssey of Leon Theremin*, won the best documentary prize at this year's Sundance Film Festival. . . . Ditto for Brian Eno, winner of this year's Frankfurt Music Prize, presented at the Frankfurt Musik Messe on March 15. Previous winners include Chick Corea, Alfred Brendel, Gidon Kremer, and Sir Georg Solti. . . . And for those who've always had trouble telling one Tony from the other, Tony Toni Toné is about to clear up the confusion. Their next video, for the single "Lay Your Head on My Pillow,"

# BACK to the CLASSICS with BRAZILIAN JAZZER ELIANE ELIAS



The jazz-classical crossover is old news. Instrumentalists with strong jazz pedigrees have been releasing their takes on everything from Bach to Cage for years. What's different about Eliane Elias's classical debut disc is that, in her view, it marks a step downward — a return to a discipline that is, in some senses, less challenging than the jazz performances for which she is celebrated.

"It's easier to play classical music," the Brazilian pianist insists. "Why? Because if you've learned how to read, whether you're extremely talented or a little talented, you'll come up with something. To play jazz, to get into your creative side and improvise, is much more difficult. For me, it's also more natural."

Even so, *On the Classical Side* [EMI Classics] marks a milestone in her artistic odyssey. Since moving to New York in 1981, Elias has kept playing and exploring European masterworks on her own and through studies at Juilliard. This work steered her in a direction opposite to that followed by many jazz pianists: Where Chick Corea and other devotees of Bartók and Prokofiev cultivated an approach based on the piano's percussive sonorities, Elias worked to bring out more *cantabile* qualities.

"Because of the nature of the instrument, it's much more common to find people taking the percussive approach," she explains. "After all, a child's touch is percussive. I still play many things in a percussive way, even on this record: [Villa-Lobos's] *Festa no Sertão* and *O Polichinelo* have a very strong attack. Even in the middle part of *Festa no Sertão*, which is very Chopin-like, you still have a strong attack and the whole weight of the arm in the left-hand part.



# EMERSON PROGNOSIS: A-OK

Our April '94 cover story recounted Keith Emerson's battles with a nerve ailment in his right arm and posed the question: "Will Keith Emerson ever play again?" The answer wasn't clear as we went to press last month. The picture is a bit clearer now, and we're happy to report a more hopeful prognosis. Three months after Emerson underwent surgery to relieve pressure on a blocked nerve in his right arm, he went through another round of nerve conduction tests. The reading, according to Dr. Robert Bassett, Keith's surgeon, was very good; in fact, no nerve restriction could be found. Not surprisingly, the muscles in Emerson's right arm have weakened after several months of limited mobility. While he is not prepared to perform at this point, Keith expects to be up to full speed after three months of careful exercise and frequent rest. Odds are that we'll see him and the rest of ELP back onstage later this summer.



But I also wanted to bring in the sense of the strings."

This meant, Elias says, developing greater sensitivity in her contact with the keys. "It's more about the hands, the way you press the note, than about the pedals. You want to already be touching the key before the key goes down. This way of making the strings vibrate and creating a beautiful sound changed a lot of the way I write and some of the way I play."

Elias's interpretations of works by Bach, Chopin, Ravel, and Villa-Lobos reflect a preference for Romantic euphony over the steely snarl of modernism. Her touch is lyrical rather than emphatic. If anything, her restraint could puzzle those who appreciate her more adventurous romps through Brazilian tunes, jazz standards, and original titles. But there's a reason for Elias's caution: the suspicion with which classical cognoscenti deign to regard interlopers from the jazz realm.

"The instrument is exposed in a different way when you're doing classical music," she muses. "The detail of each note has to come out, because the music is written. Beyond that, people put the magnifying glass on you more if you're a jazz artist. Wynton [Marsalis] plays classical repertoire wonderfully. But he's got to, because everybody is really listening to him. That's why, when you play, you're always thinking, 'A lot of the people sitting here know this music from beginning to end. They're *analyzing*.' Really, I wish they could just *listen*."

—Robert L. Doerschuk

will show the guys entirely in the nude. Grab that vertical control and stay tuned.

## INDUSTRY UPDATE

**AFTRA INTERACTS.** The first comprehensive contract involving performers in interactive media was signed in January. The American Federation of Television and Radio Artists (AFTRA) and Electronic Arts Productions, a manufacturer and distributor of interactive software, finalized an agreement that set a minimum of \$485 per day for singers, dancers, voice-overs, and other on- and off-camera talent in multimedia sessions. The contract sets a precedent for ongoing negotiations between AFTRA and other interactive producers, and marks another step toward the recognition of interactive software as a significant performance medium.

**SYNCLAVIER SUPPORTS OMF.** The Synclavier Company has signed on to the Open Media Framework bandwagon. On March 21, at the National Association of Broadcasters convention in Las Vegas, the company introduced S/Link, a software application that allows users to transfer and convert files and multiple directories by dragging and dropping them on the Macintosh desktop. This program makes Synclavier and Post-Prodigital audio workstations fully

compliant with OMF standards, and allows wider compatibility with Digidesign ProTools, Audiomedia II, and Session 8, Studer Dyaxis II, Avid Media Composer, and other digital audio workstations, as well as with Adobe Premiere, Avid VideoShop, Macromedia Director, and other multimedia software for the Mac.

## BULLETIN BOARD

**LET'S GET VIRTUAL.** Attention, cyber-junkies! Dust off your data gloves and head for Banff. 4CyberConf, dedicated to exploring the political, social, economic, and technological implications of cyberspace, takes place at the Banff Centre on May 20-22. Then, before you can even catch your breath, the Art and Virtual Environments Symposium, scheduled for May 23-24, will draw musicians, computer graphic artists, medical researchers, and other folks who want to share ideas on the artistic uses of VR. For information on how to attend either or both of these conferences, contact the Banff Centre, Box 1020, Banff, Alberta, T0L 0C0 Canada, call (403) 762-6100, or fax (403) 762-6444.

**CHECKIN' OUT SOUND-CHECK.** Local bands in all styles are invited to apply to Soundcheck, the annual music showcase and talent hunt sponsored by Yamaha. Restriction



tions are few: Each act must include at least two people, perform original compositions, and be currently unsigned to any nationally distributed label. A panel of record company A&R executives will pick 20 semi-finalists based on tapes submitted with each application. These acts will audition live in their home towns for Soundcheck reps; the five finalists will each receive a \$3,000 development fund and be flown to L.A. for the last round of competition in August. The grand prize winner will represent the U.S. at MusicQuest, the international pop and rock showcase scheduled for Oct. 10 in Japan. All entry forms and tapes must be received by May

31. Call (800) 451-7625 for materials and further details.

**COMPUTER MUSIC BLOWOUT.** Human-computer interaction onstage and new developments in user interface and instrument design are among the topics to be explored at this year's International Computer Music Conference, scheduled for Sept. 12-17 in Aarhus, Denmark. Eleven concerts are on the program, including shows by **Michel Waisvisz**, designer of the hand-held controllers known simply as The Hands, and by **Cikada** and the **Athelas Sinfonietta**, both known for combining acoustic instruments and computers in perfor-



mance; the final concert will take place outdoors, complete with fireworks. The deadline has already passed for submission of new works for the juried competition, but it's not too late to score tickets to performances and seminars. Call (011-45) 8931-8171, fax (011-45) 8931-8166, or write to ICMC '94, Musikhuset Aarhus, Thomas Jensens All., DK-8000 Aarhus C., Denmark.

**MULTIMEDIA TRIBAL FEST.** Multimedia developers are packing their bags for Art Teco '94. Scheduled for June 16-18 in San Francisco, the event features interactive labs, seminars and panel sessions, awards ceremonies for the year's best interactive titles and customized applications, and plenty of hang-loose time at the festival's "temporary ambient zone," which sounds suspiciously like a lounge to some Earthlings. Art Teco also celebrates the opening of Cyberlab 7, a multimedia studio built by Dan Mapes, who produced the graphics and special effects for Peter Gabriel's WOMAD tour. For details

## MIKE PINDER

### the MANY MOODS of a MELLOTRON MASTER

**A**rguably the most popular exponent of the Mellotron, Mike Pinder contributed much more than just an ethereal wash of strings to the sound of the Moody Blues. His trance-like melodies, metaphysical lyrics, and poetic recitations are as much a part of the lore of the '60s and '70s as

patchouli oil and the *I Ching*. Largely absent from the music scene since his split with the Moodies in the late '70s, Pinder recently resurfaced with a self-produced CD entitled *Off the Shelf*, and a contribution to a Mellotron compilation CD, *The Rime of the Ancient Sampler*.

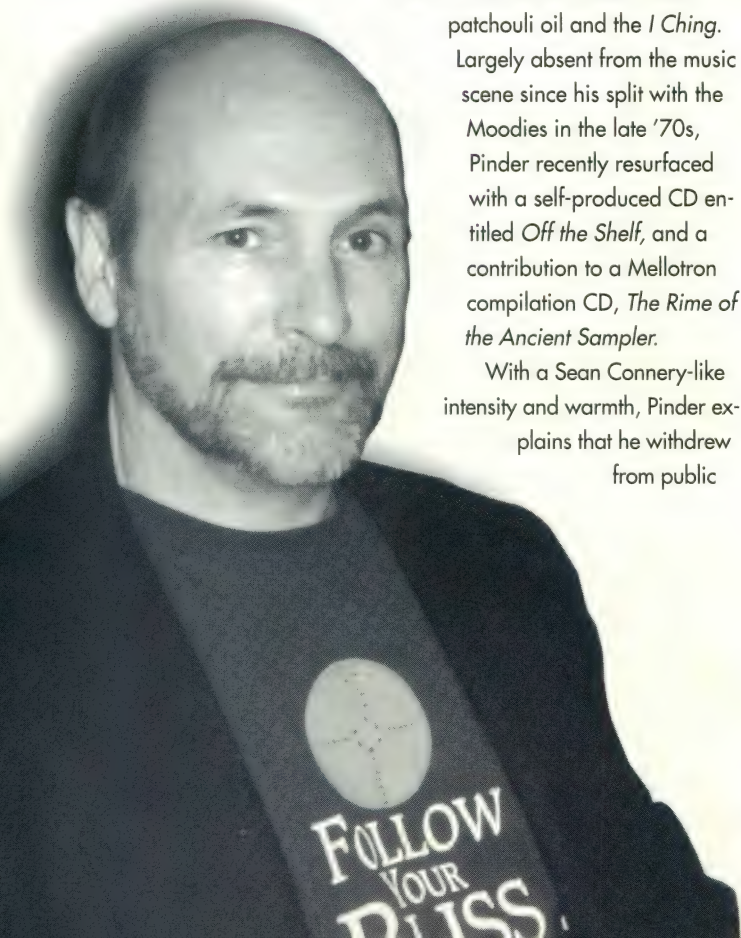
With a Sean Connery-like intensity and warmth, Pinder explains that he withdrew from public

life to raise his family in a small community in California's Sierra foothills. "My lifestyle's very normal," he says, "with neighbors on either side of me, and a normal-sized garden and house. I didn't want my kids to grow up in show business." For Pinder, letting go of the rock world allowed him to experience life in a new way, but now he feels the time may be right to return.

As if to test the waters, *Off the Shelf* contains merely five cuts, the basic tracks of which were recorded with studio luminaries in the early '80s at the Indigo Ranch in Malibu, which Pinder owned at the time. The vocals were done recently at his home studio. The Mellotron is clearly present on the disc, although very much in a supportive role. *Off the Shelf* is available only by mail through *Higher and Higher*, the official Moody Blues newsletter. To receive order information, send a SASE to: *Higher and Higher*, Box 829, Geneva, FL 32732.

*The Rime of the Ancient Sampler* is the fruit of the labors of Martin Smith, an English Mellotron devotee. In addition to the track by Pinder, it includes contributions from Patrick Moraz (Yes, Moody Blues), Bill Nelson (BeBop Deluxe), Blue Weaver (Strawbs), Derek Holt (Climax Blues Band), and David Cross (King Crimson), to name a few. On the Voiceprint label, it's available from Sunshine Music (200 Atlanta Ave., Box 2209, Stuart, FL 34995).

While the sounds of the Mellotron are still an integral part of Pinder's varied palette, they are no longer culled from those cumbersome boxes filled with tape loops; he's got the sounds in his Roland S-770 and S-750 samplers. He's making these samples available to the public on a CD-ROM produced by InVision. With sound designer Justin Meyer, he sampled a Mark 2 supplied by David Kean, owner of the Mellotron Archives and a bona-fide gigging Mellotronist to boot. "David bought what was left of the Mellotron company," says





# YANNI'S GREEK PASSION



Last September, Yanni brought new age back to the old world. The Greek-born synthesist played his first homeland gig since leaving for the States and becoming a *People*-certified superstar. Backed by the London Royal Philharmonic Concert Orchestra, he filled the ancient Herod Atticus Theatre, at the base of the Parthenon in Athens, with thoroughly modern string washes and rhythm sequences. If you missed the PBS broadcast of the event in March, you can still hear it on *Yanni Live at the Acropolis*, his current release on Private Music. You can also catch him onstage with another orchestra this summer, during a U.S. tour.

Pinder, "so he ended up with all of the master tapes, and all of the spare bits and pieces."

While he prefers to look toward the future rather than dwell on the past, Pinder is not bitter about the changes that he went through with the Moody Blues. "When I came to the states in 1974, it wasn't intended to be a split with the band," he says. "America was the place to be, and people were inventing incredible things in their garages. In England, the Labour Party had just got in, and I hadn't seen the sun in about six months. We had just finished a world tour, and for me, what was left to do? I could've kept on doing that, or I could've fulfilled other things in my life."

After Pinder moved to the States, he and other Moody Blues members released solo albums. Producer Tony Clark arranged to do a reunion album in 1978, which became *Octave*. "That was pretty much a disaster," recalls Pinder. "Then in 1980 or '81, I found out that they were making an album without consulting me. That's when they brought Patrick Moraz in. There haven't been any subsequent reunions with me."

Will we be seeing Mike Pinder in concert anytime soon? "If everything was right, I would play live again," he reveals. "If things came together to make it easy to do, then I would be more than happy to do it."

Whatever form his musical involvement takes, Pinder is excited about the future. "In the '60s, we had a lot of dreams," he says. "Here in the '90s, we're seeing a lot of those dreams become reality. Things that I was writing about in the '60s and '70s are starting to happen. People are just naturally turning to a better way of thinking and living. So, although I'm still a '60s kind of guy, I'm wearing a '90s hat. You can only keep going forward. I don't see any point in doing otherwise." —Ernie Rideout

## NEW DIMENSIONS in CONTROLLER DESIGN



Tired of one-dimensional playing but not ready for 3-D? Jacob Durringer, an aerospace engineer, has designed a 2-D keyboard controller based on both horizontal and vertical configurations. Called the *Monolith*, it features rows of buttons that run left and right and duplicate the traditional keyboard spacing and chromatic arrangement. What's different is that the *Monolith* offers 15 such rows, neatly stacked, each one assignable to different sounds or instruments via MIDI. With this setup, multitimbral combinations far beyond the capabilities of single split keyboards lie easily within the player's grasp. Limited production is about to begin. If you're interested, contact Heavenbound Systems Engineering Group, Box 118, Lake Forest, CA 92630; the phone and fax number is (714) 837-5029.



**"...then SHE PUT the WEIGHT  
RIGHT on mee-e-e..."**



Hildegard KleeB added a live touch to "Composition-Decomposition," a multimedia show staged last January at the Swiss Institute in New York City. She interacted with Roland Dahinden's recorded piece based, which was on samples of painter Philippe Deléglise creating the works displayed on the wall. As brush dabs, pencil scrapes, and other noises boomed up through the piano from a floor speaker, KleeB improvised, then grabbed the lead weights shown at the low end of the keyboard, arranged them here and there on the keys, and left for a while. This performance, repeated several times over the course of two days, gives new meaning to the term "weighted action."

## NAT ADDERLEY, JR.

**on TOUR & on RECORD with LUTHER VANDROSS**

**M**usical inspiration can come from a variety of sources: recordings, videos, concerts, or, for a fortunate few, their relatives.

Nat Adderley, Jr. can relate to the latter. Born into a family of jazz legends, which included father Nat (trumpeter) and uncle Julian "Cannonball" (saxophonist), he hit a genetic jackpot of sorts.

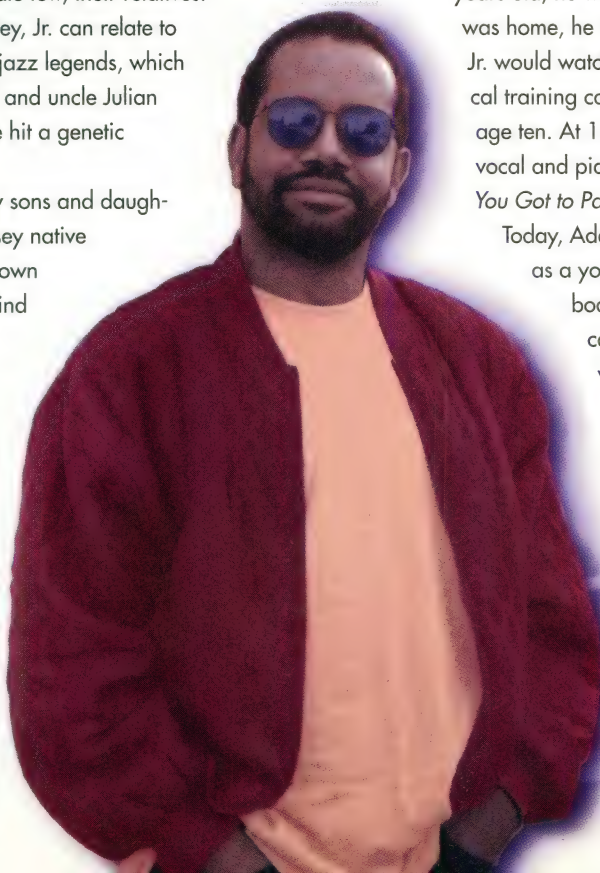
Or did he? As with so many sons and daughters of celebrities, this New Jersey native wants to be recognized for his own merits, not for his surname. "I find it aggravating at times," he says. "I've read a lot of articles about children of the stars, and I can definitely relate. In my case, I felt a lot of pressure to be great real soon. It took me a long time to really want to play jazz, because I felt that if I couldn't play as good as Cannonball, forget it."

The keyboardist is asked often about his up-

bringing, "and the answer," he explains, "might be a bit surprising. See, my father was on the road a lot. From when I was five to ten years old, he was away more than he was home. So when he was home, he liked to leave his music alone." Young Adderley, Jr. would watch his father play on occasion, but his main musical training came from the classical piano lessons he started at age ten. At 15, he launched his studio career by contributing vocal and piano tracks to Cannonball Adderley's *The Price You Got to Pay to Be Free*.

Today, Adderley, Jr. has plenty to show for his hard work as a youth. He's on tour with Luther Vandross as keyboardist and musical director — a relationship that can be traced back to their high school days when they performed together at the Apollo Theater. Prior to his affiliation with Vandross, he worked extensively with R&B greats Ashford & Simpson.

Adderley has been busy in the studio as well. He's co-written, arranged, and performed on a variety of Vandross tracks, including the Grammy-winning "Here and Now," not to mention his collaborations with Natalie Cole and Aretha Franklin. If all goes well, he'll release a debut solo record late in '94. —Greg Rule





on how to attend, call the sponsor, *Morph's Outpost on the Digital Frontier*, at (510) 238-4547, or fax (510) 238-9459.

**MAJORS AND MINORS.** On June 2-3, the University of Massachusetts at Lowell will sponsor a seminar on "Current Topics & Advanced Production Techniques in Audio Recording" at its new Center

for Recording Arts, Technology, and Industry. This center includes facilities for analog and digital audio recording, multimedia production, acoustics and studio design, psychoacoustic study, hardware and software development, and other disciplines. Though professionals will have access to the



center, its main function will be as a resource for students participating

in the school's degree program in sound recording technology. To register for the seminar or find out about other programs at the center, write to the University of Massachusetts, College of Fine Arts, Lowell, MA 01854, call (508) 934-3850, or fax (508) 934-3034 for further details. ■

## RECORD LABELS, R.I.P.?

how TWO COLLEGE STUDENTS are SHAKING up the INDUSTRY

**P**icture this: The music business radically restructured. Major labels rendered obsolete. Record stores shutting down. Artists and consumers dealing directly with one another, free of middlemen. Albums selling — via computer — for a tenth of what they cost now.

Sure, it sounds farfetched. But so did the desktop computer itself, a few years ago. If the winds of revolution are indeed blowing our way, we can trace their source to a group house somewhere near Santa Cruz, California. There, two computer science students with a passion for music are planting the seeds that may change the music world forever.

It began last November, when Jeff Patterson and Rob Lord cofounded the Internet Underground Music Archive (IUMA). Both had worked in record stores; Patterson, a guitarist, was also trying to finish a demo tape with his band, the Ugly Mugs. "From our vantage point as peons in the industry," Lord explains, "we came to realize who gets exploited in the bargain: It's both the consumers and the music makers. You see a band getting maybe a dollar from a \$15 CD, and the consumer paying the rest of it to middlemen. That's pretty distasteful. We wanted to find an alternative way for bands to get their music directly to listeners."

That alternative is the IUMA. Scanned graphics files have become commonplace on computer networks, along with compression programs that allow large files to be transmitted quickly and stored in less disk space. "It made sense that music would be the next thing," Lord says. "When I saw that there was a distributable playing program for the kinds of files we're now making, I realized that it was time to set up an archive. And the IUMA was born." The playing program currently used by IUMA is called MPEG; the acronym refers to the Motion Picture Expert Group, a research group that has been developing new methods of digital compression for video. Currently in development are the hooks that will allow MPEG audio files to be played back on a variety of soundcards, or even through the built-in speaker on a Macintosh.

All unsigned artists are welcome to use IUMA as a means of getting their demo material directly to consumers. The process involves sending your music on cassettes to Lord and Patterson. They digitize the audio on a Turtle Beach MultiSound card, then compress the audio file using MPEG. Internet users can download both audio files and MPEG decompression software. "If you FTP [file transfer protocol] our site,"

Patterson says, "you'll find a directory for the MPEG players [that is, playback software], then a directory for what system you're on. You'll just grab the files from there, and that's all the software you'll need to play back the file."

The MPEG playback engine will address your computer's audio output directly, decompressing the disk file in real time rather than translating the file into one of the standard 16-bit formats. The compression scheme is not unlike that used in the consumer-oriented MD and DCC formats — not audiophile quality, in other words, but good enough for rock and roll.

The goal of IUMA is to enable musicians previously ignored by the industry to find an audience. "A lot of them are do-it-yourselfers who don't want to bother with the concept of trying to get signed," Patterson says. "They just want to make music, and maybe sell tapes at their gigs. Through the IUMA, they'll be able to send us a tape, and we can shoot it to people at no cost to the artist." Liner notes and artwork will also be available for downloading.

Currently the only way to get your music on IUMA is to send a tape to them. Patterson and Lord make it very clear to musicians who use their service that they can only submit original material, and they don't allow uploading of files. But MPEG encoding software is currently available for under \$100. It's a formula for major copyright headaches. Jeff Patterson reports that he hasn't yet heard directly from any of the major labels, but it's hard to imagine that the big players aren't keeping an eye on this development. A free distribution system is a recipe for anarchy: lost royalty income for artists, repressive government crackdowns, licensing schemes that take money out of independent artists' pockets and redistribute it to the majors — the mind reels.

Even though the IUMA bypasses record company bureaucrats in getting music to the masses, Patterson and Lord aren't necessarily out to destroy major or even indie labels. "They could look at what we're doing as a new way of distributing or promoting their acts," Lord says. "We're not killing the companies; we're just forcing a change. If they don't evolve, they may die out. But if they do evolve and change how they distribute, it'll just be a paradigm shift."

To reach the IUMA, call (408) 458-4227, E-mail to [ianc@sunsite.unc.edu](mailto:ianc@sunsite.unc.edu), or FTP to [sunsite.unc.edu:/pub/electronic-publications/IUMA](ftp://pub/electronic-publications/IUMA). —Robert L. Doerschuk, Jim Aikin, & Mark Grey



# Mac Revolution



*The ultimate  
interface  
circa 1985*

Almost ten years ago, shortly after the introduction of the Apple Macintosh computer, Opcode Systems released the first commercially available MIDI interface for the Mac.

Since that time we've sold more Macintosh MIDI interfaces than any other company in the world.

Today, Opcode has the most comprehensive line of OMS compatible interfaces for computer hobbyists, semi-pro home studios, portable systems, and professional large-scale, studio setups.

Get yourself an Opcode MIDI interface, for the ultimate connection.

**See your local dealer today or call  
Opcode for free literature.  
1-800-557-2633 ext. 116**



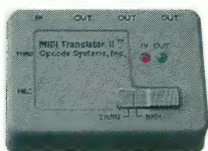
*The Studio 3 has 2 INs and 6 OUTs, 32 MIDI channels, MIDI activity LEDs, serial thru switches and SMPTE to MTC conversion. This is the interface that countless sessions depend on every day.*

**Studio 3™  
\$319.<sup>95</sup>**



*The Translator Pro is the brand-new successor to the Studio Plus with 2 INs and 6 OUTs, 32 MIDI channels, MIDI activity LEDs, and a serial thru switch. No power supply is necessary.*

**Translator Pro™  
\$99.<sup>95</sup>**



*The MIDI Translator II has 1 IN and 3 OUTs, 16 MIDI channels, MIDI activity LEDs, and a serial thru switch. No power supply is necessary. The evolution of the essential.*

**MIDI Translator II™  
\$59.<sup>95</sup>**



# Mac Evolution



The Studio 5x is the top of the line interface with 15 INs and OUTs, 240 MIDI channels, MIDI activity LEDs, serial thru switches, and SMPTE to MTC conversion. It has unlimited merging, on-board MIDI Processing, and stand alone patcher capabilities. You can network up to six together for the ultimate connection.

**Studio 5™**  
**\$1195**



The Studio 4 has 8 INs and OUTs, 128 MIDI channels, MIDI activity LEDs, serial thru switches, and SMPTE to MTC conversion. It has unlimited merging, virtual instruments, and MIDI Processing with the Macintosh active. You can network up to four together for multiple racks.

**Studio 4™**  
**\$495**



Tim Myer, one of the system designers at Hydra Tech, knows what musicians need. "I've installed Opcode interfaces exclusively for years — they're reliable, and there's always a model to fit the need, with the features musicians want. Since day one, it's been easy to communicate with Opcode, the people are great."

Hydra Tech studio and tour support credits include: Janet Jackson, Bruce Hornsby, Michael Jackson, Greg Phillinganes and Chuck Leavell with Eric Clapton, Don Henley, Lionel Richie, Elton John, George Harrison, Michael Bolton, Chick Corea, The Moody Blues and many, many others.



3950 Fabian Way Suite 100, Palo Alto, CA 94303 (415) 856-3333 FAX (415) 856-3332





# Vintage Keys Plus.

## Jam-packed with even more analog keyboards.

**The "Plus"—Great New Sounds Added.** If you're feeling upstaged because you don't have as many classic analog keyboards as you'd like, relax. Now you can get your hands on more of those warm, rich keyboard sounds in the newest edition of Vintage Keys: Vintage Keys Plus. It has all the classic analog keyboards found in Vintage Keys, plus it offers more of the cool sounds you Vintage enthusiasts have been asking for, ranging from Dyno Rhodes and Yamaha FM synthesized electric pianos; to classic Emulator II and Emulator III sample snippets; to Sequential Circuits, Moog, Oberheim, Roland and ARP analog synthesizers; to E-mu® SP-1200, Roland DR-55 and Roland TR-808 drum machines; to classic stringed instruments like Chapman Stick, Fender P-Bass and Electric Sitar, to name just a few. That's an additional 8MB of high-quality, digitally sampled analog keyboard sounds in all!



**Don't Forget the Original.** But let's not forget the module that started it all—the original Vintage Keys. If you're dying for the classic fat basses, thick pads and sizzling leads of classic analog keyboards, but living within a tight budget, get down to your E-mu dealer and find out what the industry has been raving about for the past year. Vintage Keys' solid 8MB base of organs, electric pianos, analog synths and dozens more keyboard sounds is proof that the Vintage standard is alive and well.



Whether you choose Vintage Keys or Vintage Keys Plus, you'll get a fantastic collection of keyboard sounds that are yours for the playing. And they come wrapped in a single space module that offers you 32-voice polyphony, 16-channel multi-timbral capability and 6 assignable polyphonic outputs.

So what are you waiting for? Listen to a demo of Vintage Keys or the new Vintage Keys Plus today. Because those warm, rich keyboard sounds really are as sweet as you remember. And now there are more of them than you could ever imagine.

### Expanding Your Original Vintage Keys Is Easy.

For current Vintage Keys owners who just can't get enough of that analog mood and feel, E-mu has good news: there's room in your Vintage Keys for the same additional 8MB of great keyboard sounds found in the "Plus." Just grab your Vintage Keys Expander kit and go for it! Installation is easy and so is the price.

**VINTAGE KEYS**  
CLASSIC ANALOG KEYBOARDS  
*Plus*

**E-MU**  
— — — — —

**E-mu Systems, Inc.**

P.O. Box 660015, Scotts Valley, California 95067-0015 • 408-438-1921

U.K. E-mu Systems, Ltd., Suite 6, Adam Ferguson House,

Eskmills Industrial Park, Musselburgh, EH21 7PQ • 44-031-653-6556

©1994 E-mu Systems, Inc. E-mu and E-mu Systems are registered trademarks, and the E-mu logo is a trademark of E-mu Systems, Inc. All other trade and product names are property of their respective owners.



# CREATIVE OPTIONS



CONNOR FREFF COCHRAN

## MOTIVES 2: THE RULE

**T**HERE ARE ANY NUMBER OF HANDY rules to live by, most of them variations on Murphy's Law (a fact which itself seems one of said variations). But there are other bits of useful shorthand. Theodore Sturgeon gave us Sturgeon's Law, which says, "Ninety percent of everything is crap." In my own small way I came up with such aphorisms as, "The right to free speech does not include the right to shout 'Nova!' in a crowded planetarium," and, "For every action there is an equal and unexpected side effect," and the terribly piquant, "When in doubt, hesitate." Then there are business guidelines, like, "Sell short, buy long" (or is it the other way around?), and, "Never sign with someone who talks faster after they come back from the bathroom," which is a good one, right up there with, "Don't trust anyone who wears sunglasses indoors without a note from their doctor," or W.C. Field's, "Never give a sucker an even break," or what is maybe my all-time biz fave, a mercantile directive so basic it should be tattooed backward on the forehead of anyone starting their own company, where they can see it every morning in the mirror as they brush their ever-lessening supply of hair: "Never have a partner with an ego bigger than your bank account."

And I can't be leaving out me Irish heritage, can I? (Cue lilt.) Ah no, not when it's rich with such wonders as, "There'll be white blackbirds before there's an honest \_\_\_\_\_" (man or woman, take your pick). And who could forget, after hearing it once, the jolly but not entirely comforting, "You'd best enjoy life while you're alive, 'cause you're a long time dead." Oog. Aye aye, O'Riley.

But let's get a shade more serious. None of these are rules to create by. Since childhood I've heard people who really ought to know better say, "You've got to know the rules before you can break them," which makes it sound as if there must be an artist's handbook lying around someplace, waiting to be memorized. Hard as I've looked, though, I haven't yet found it. Have you? Oh, there's practical advice aplenty, hundreds of little training-wheel rules like, "Always paint light to dark" in watercolors, and, "Split not thy infinitives hanging" in English grammar. But compared to, say, gravity, these are something less than formidable, universal, or enduring. Indeed, the very notion of a "creative rule" seems an oxymoron, like "military intelligence" or "the punk aesthetic."

Maybe it's drill sergeant time. "You want creative rules? Okay, all you stinking lily-livered

artists, get your butts in gear and on the line. Musicians, I want you in alphabetical order by last name, first name, and favorite



key signature. Painters and poets, form ranks. Quit kicking, poets — there are feet enough in that iambic pentameter for all of yez. Now I want to see those paintbrushes and felt-tip pens and keyboards at an exact 32-degree angle off true, that's the way . . . and now hit it! Hut, tewo, three-ee, fyor, who do we create stuff for? The Masses! [beat] The Masses! [beat]

The Masses! [beat beat]"

On second thought, I don't know; Jesse Helms might actually go for this. I should apply to the NEA for an "Art On The March" development grant.

Most kidding aside, though, I think that maybe there are some useful rules for creators — perhaps even two entirely separate kinds of observations worth codifying for easy access: one set to keep you loose and free in your heart, easing the terrible fear of creation that haunts most of us adults; the other kind providing some guidance along the path, like signposts marking a scenic but hazardous mountain trail. One set for process, then, and another for endurance.

Let's look at the nominees. Process rules first, in part because they're more numerous, in part because they can be applied to any creative medium indiscriminately just by tweaking a few nouns and verbs, but in main because they are easy to test against (and through) your own experience.

There are three of them. Since I first codified them for myself while teaching phobic adults to draw, I'll state them in their original visual terms and expand from there.

Creative Process Rule #1: *The blank white page wants you to draw on it.* I'm quite serious about this little bit of anthropomorphizing. The blank white page *does* want you to draw on it, just as the clarinet *wants* to be picked up and played, the notation paper *wants* to be filled with hemidemi-quavers and breves, the marble *does* want to be chiseled into meaning. This is the ultimate permission you can give yourself, to see raw potential not as frightening and judgmental but as actively willing to collaborate. No creative medium cares how you make use of it; it cares only whether it is used. Children know this. It's why they paint on walls, or make music with twanging rubber bands and split stems of grass, quite naturally aware of the infinite potential of the world and not yet held back by the lesson

Connor Freff Cochran is happily busy with a new partnership and new projects, including forays into that strange place called Hollywood. If you are interested in more of his explorations into creativity and life, just write c/o Crossing Point, 47 Lafayette Circle, Suite 180, Lafayette, CA 94549, and ask for a free copy of Connor's Creation newsletter.



## Your Style

- ☐ Rock
- ☐ Jazz
- ☐ R&B
- ☐ Blues
- ☐ Latin
- ☐ Funk
- ☐ Fusion
- ☐ Groove
- ☐ Big Band
- ☐ Country
- ☐ Alternative
- ☐ Thrash
- ☐ Electronic
- ☐ Metal
- ☐ Other

## Your Level

- ☐ Starting out
- ☐ Been at it a while
- ☐ Intermediate
- ☐ Been on the road
- ☐ Advanced
- ☐ Made an album
- ☐ Super Advanced

## Your Schedule

- ☐ Weekend
- ☐ 3 Months
- ☐ 6 Months
- ☐ 1 Year
- ☐ 18 Months
- ☐ As long as it takes



Your style, your level, your schedule, your future...

# 1-800-255-PLAY

# MI

1655 McCadden Place, Box 6565, Hollywood, CA 90028 Tel: (213)462-1384 Fax: (213)462-6978

## CREATIVE OPTIONS

that Some Things Aren't For Art.

Creative Process Rule #2: *Don't stop until the drawing tells you it is done.* Or the song. Or the clay pot. Or the play. Or the orchestration. Even after you get over the fear of beginning to create, there is constant temptation to quit because the thing being created is not "good" enough by some external or internal standard. The only way to avoid that trap is to cede control to the creation — just as in rule #1 you give up control to the medium — and then let your creation decide such things for you. Listen, listen, and listen; you'll hear your work speaking to you in the subtle voice of attraction, not the shrill hawk of displeasure. Does your hand twitch toward your tools, whatever they may be, after you thought you were finished? Then you are not. Your work always knows better than you, because it springs from deeper wells than consciousness. Trust it. If you don't then you will teach it by default not to trust you, and someday it may not come round anymore.

Creative Process Rule #3: *Have fun.* That simple. You know — fun! Joy. Pleasure. Delight. Bliss. Elation... ecstasy, even. Otherwise, what's the point? Money gets spent, and audiences are fickle. To open wide the creative well you must revel in the private rapture of your own creation. Anything outside that flowing moment is one of the perks of being an artist, but it's neither the thing itself nor even terribly relevant to it. If you are really creating, you are having fun. That truth holds even for people whose approach to art seems dark, morbid, and angst-ridden. In the moment of creation they are working from their joy, oddly wired though it may be. Art is always a nod to hope, whatever its subject matter, and pain never picked up pencil, pen, brush, or baton.

Assuming that these three rules stand your process in good stead (and I've seen them open heads made of ferro-concrete to the joy of drawing, so I've great faith in them), then what about endurance? What about hanging on when it seems rough, or finding your path in the dark?

Have two more rules, then, to grow on. Detailed analysis and application are left as an exercise for the intrigued reader.

Creative Endurance Rule #1: *Set yourself a goal line and then never stop on this side of it, no matter what (because you can always go a little farther, and you never set goals far enough ahead).*

Creative Endurance Rule #2: *If you want to win more times than you lose, if you want to stay ahead of the game — whatever your particular game happens to be — then always bet on change. Because change always wins.*

Got those? Good. Now go give them a try.

A few final notes, neither rules nor even guidelines. Call them bits of friendly advice, a way to define yourself as you explore your role as a creator. To yourself, be no friend, but a lover. To others, be not you, but them. To the world, be aware of your place in a bigger framework of purpose. All of which, I suppose, can be summed up by the one artistic directive that really matters: *Choose and see it through.*

# NOTEable MIDI

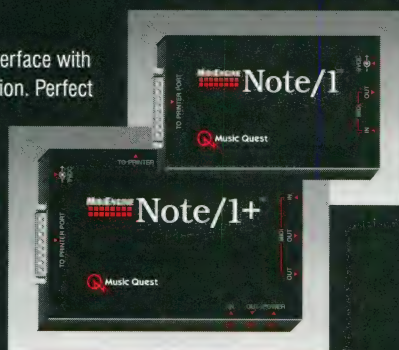
interfaces for IBM compatibles

## MIDIEngine Note/1

Convenient low cost external interface with full 16 channel intelligent operation. Perfect for portable MIDI power.

## MIDIEngine Note/1+

Like the Note/1, but includes a 2nd MIDI out, printer sharing port, and front panel LED's for power, MIDI in, MIDI out.



Both models connect to parallel printer port for tight trouble-free performance with notebook, laptop, & desktop PC's. Multi-client Windows driver and DOS Cakewalk driver included.

MADE IN USA



## Music Quest

USA / Canada: 1-800-876-1376

1700 Alma Drive, #330 Plano, TX 75075 Ph: 214 881-7408 Fax: 214 422-7094

Music Quest, MIDIEngine Note/1 and Note/1+ are trademarks of Music Quest, Inc. Other trademarks acknowledged.



# WHAT HAVE YOU DONE FOR YOUR STUDIO LATELY?

## NEW! SESSION 8™ MAC

Digidesign's award-winning integrated personal digital studio is now available on the Macintosh®. Featuring 8-channel digital recording, random-access editing, digital mixing & bouncing, and MIDI sequencer integration.

Digidesign Session 8—the personal digital recording studio with full-featured professional studio quality.

## NEW! DIGIDESIGN® ADAT INTERFACE™

To the ADAT and Back! Digidesign closes the link between hard disk and digital tape by giving you simultaneous 8-channel digital transfer between the Alesis ADAT and Digidesign Pro Tools or Session 8.

Think about it: Random-access digital editing and bouncing for ADAT.

Cost-effective audio storage for Pro Tools and Session 8.

A match made in studio heaven.

## NEW! SAMPLECELL PC™

The Mac standard for integrated sample playback power and simplicity comes to the PC! SampleCell PC features 16-bit, 32-voice, 32-megabyte, sample playback, a gargantuan sound library from some of the industry's premier sound developers, and outstanding integration with Windows sequencers and Digidesign's own Session 8 PC personal digital studio. The PC power user's dream system!

## NEW! MASTERLIST CD™

Create your own CD master! MasterList CD software allows you to create "Glass-Master-Ready" CD's on a variety of low cost CD Recorders. Works with any Digidesign Recording and Editing System to provide "Red Book" compatible CD's that can be accepted directly by CD duping plants worldwide.

## ALSO NEW! FOR MAC MULTIMEDIA: DIGIDESIGN SOUND DRIVER™

The multimedia audio solution that you've been waiting for! Enables any Macintosh QuickTime® application such as Adobe Premiere™, Macromind Director™, and Passport Producer™ to directly record and play 16-bit, CD-quality audio through Digidesign Audiomedia, Sound Tools or Pro Tools systems.

**digidesign**

TO GET INFORMATION ON DIGIDESIGN PRODUCTS  
OR THE NAME OF A DIGIDESIGN DEALER NEAR  
YOU CALL 1-800-333-2137 EXT. 119

© 1994 Digidesign, Inc. All features and specifications subject to change without notice. All trademarks are the property of their respective holders.

NEW PRODUCTS!



# WORLD'S LARGEST SELECTION



## INCREDIBLE GROOVES PETER ERSKINE

Real drum performances, loops and multi-sampled drum kits played by one of the most amazing drummers in music. You won't believe the recording quality captured by Allen Sides!! Jazz, Pop/R&B, Caribbean grooves etc. it's all here. SH-101 \$99.95

## FIVE STAR REVIEW ORCHESTRA

Here's the most cost effective way to add a real Orchestra to your music - play the entire Orchestra without having to mix individual sections. Superb recording with stunning dynamics! •CD \$99.95 •CD-ROMS \$399.95



## ZERO-G TECHNO TECHNOTRANCE

•Classic rave synths •Special techno synth FX •Rave/Hardcore basses •Shattering sub-basses •Industrial FX •Stinging synths •Classic house+ garage FX •Juno jam •Breakdown pads •Acid bubblers •TAS-49 \$99.95



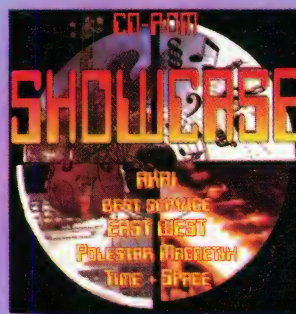
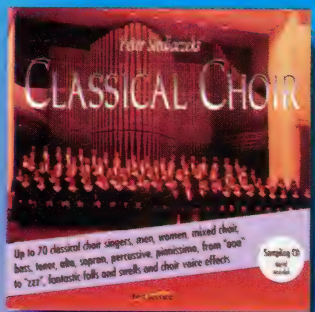
## AMBIENT TEXTURES AMBIENT 2

Atmospheres, drones, FX & textures from both classic & state-of-the-art synths e.g. Roland system 100M, JD990, VCS3, Oberheim matrix 12, Synth perc, vocoder loops, PPG waves, superb •TAS-50 - \$99.95



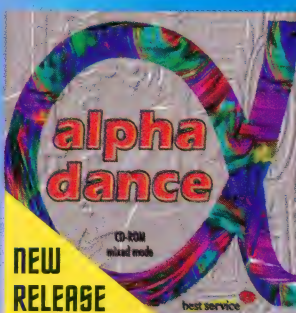
## FIVE STAR REVIEW CLASSICAL CHOIR

Up to 70 classical choir singers, men, women, mixed choir, bass, tenor, alto, soprano, percussive, pianissimo, from 'aaa' to 'zzz', falls and swells and choir effects - sensational! CD-ROMS \$199.95 CD-AUDIO •BS-17 (\$99.95)



## KILLER DRUMMER KEITH LE BLANC

Tons of great grooves plus single hits to make your own from GRANDMASTER FLASH, ANNIE LENOX, 808 STATE, BOMB THE BASS drummer Keith Le Blanc •KICKS LIKE A MULE!! •HS-P17 - \$99.95 (AMG)



## MIXED MODE CD+CD-ROM ALPHA DANCE

This is not a typo - for the cost of a single CD you get 2-CDs of drum loops, house-pianos, synth strings, killer stack sounds, synth basses, snares, latin sounds, alto sax, voices etc. plus 170 megs AKAI CD-ROM - BS19 \$99.95 (2 discs)

## ALBIE DONNELLY'S KILLER HORNS

Brass sounds this realistic used to be impossible to find •100's of riffs, licks, shots, falls and swells plus complete sections of trombone, trumpet, saxophone •CD BS-13 \$99.95 •CD-ROMS (Akai, EMI, Ensoniq) - \$199.95



## ORDER INFORMATION

For fastest delivery use your credit card (VISA MC AMEX DISCOVER) In the USA call 1-800-833-8339 (orders only); from other countries call 310-858-8797; or fax us at 310-858-8795. For INFORMATION call 310-858-8797. If ordering by credit card include your card number and expiration date. Send mail orders to EAST-WEST SOUNDWAREHOUSE, 345 N. MAPLE #277, Beverly Hills, CA 90210, USA. All mail orders must be pre-paid by credit card or by money order in USA dollars drawn on a USA bank. Shipping/handling (1st item) - USA Post \$4.75 or Fedex \$9.75 (2nd day); Alaska, Hawaii, Canada add \$10; other countries add \$20; add \$3 for each additional item. CA residents add 8.25% sales tax.



# OF SAMPLES ON CD & CD-ROM



## GLOBAL TRANCE MISSION 2 VOLUME SET

Both GTM Capsules feature Analog seqs, Ambient pads, Ethnic samples, Bases & Blips, Vocals & Dialog, Transformed drum & Perc loops etc. The classic dance sample combination with a very heavy analog emphasis. AMG \$99.95 each or \$169.95 for both.



## ROSS'S RISING FUNK FUNKY GUITAR

Brand NEW! release features pure funk, funky jazz chords, hiphop madness, pop, scratching and envelope scratching using Fender stratocaster and Fender twin reverb amps, and funky blues guitar riffs. Loads of great loops and grooves - TAS 51 - \$99.95

## DANCE DYNAMITE! XL-1 PLUS

The producers of the X-Static Goldmine and XL-1 have combined the best of both to give you the ultimate tool for dance production. They asked users what they liked best from both double CDs - here is the result! •STAR-03 (2-CDS) \$99.95



## FUNKY ELEMENTS 2 MO FUNKY ELEMENTS

The ideal companion to 'Funky Element'! Covers those areas of Funk & Hiphop that funky element didn't reach - special construction sets incl: Mo' horn hits & stabs, Sax squeals etc., Vintage disco, New jack swing, Synth funk/jazz rap - \$99.95



## DANCE PRODUCERS! DANCE/INDUSTRIAL II

BRAND NEW 2-CD Set features PUNCHY, STEREO loops PLUS! every sample from every loop (over 1500 samples + loops!!!) + the SEQUENCES FOR EVERY LOOP - the ultimate dance production tool •EW-044 \$99.95



## BASS LOOPS + SAMPLES WILL LEE/BASS

Will plays these basses nightly on 'David Letterman', you can too! •74 minutes/855 samples •7 unique basses •Sampled every 1/2-step •Multiple dynamics •Fingered/picked/pats/mutes slides/thumbs/pulls/slides •WillLoops™ •Real bass \$99.95

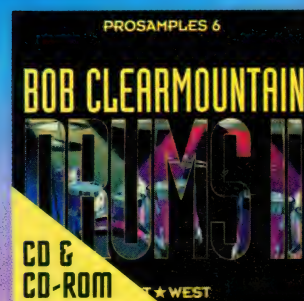
## TECHNO INDUSTRIAL TECHNOPHOBIA!

"We can't say enough good things about this collection - it's right at the top of our all time favorites list." KEYBOARD. Incredible techno-industrial loops from Greg Hawkes (Cars) and Perry Geyer (Manufacture) EW-053 \$99.95



## REGGAE LOOPS SLY DUNBAR

SLY DUNBAR characterizes the reggae beat - this HOT NEW RELEASE features original grooves unobtainable elsewhere - here's your only opportunity to have Sly 'lay down the beat' on your track - DBBCD-005 - \$99.95



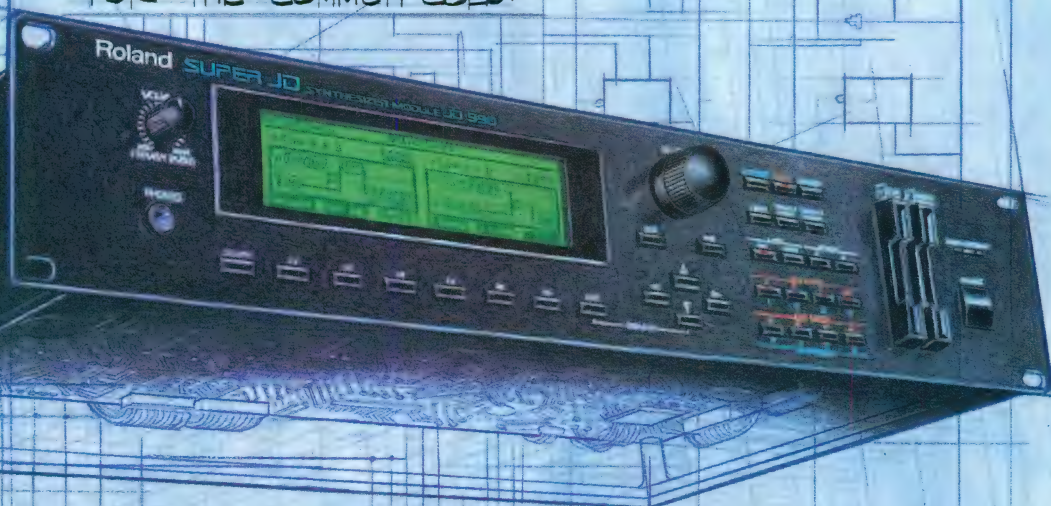
## DYNAMIC DRUMS!! BOB CLEARMOUNTAIN

"Drums 2 is top of the heap" said KEYBOARD a stunning collection of dynamically recorded drums. Most recorded with different velocities to be used with velocity-controllable samplers •EW-040 \$99.95 •CD-ROMS \$399.95





WHILE LABORING  
TO PERFECT THE BEST SYNTHESIZER  
ROLAND HAS EVER CREATED,  
OUR ENGINEERS STUMBLED UPON THE CURE  
FOR THE COMMON COLD.



BUT THEY THREW IT OUT  
AND KEPT WORKING  
UNTIL THEY GOT WHAT THEY WERE AFTER.

And what they were after was a synthesizer whose power, versatility and expandability are a must for any serious musician. The JD-990 provides incredibly clear acoustic sounds and analog synth textures with the most extensive synthesis controls available. And its intuitive sound manipulation capabilities allow you to create, shape, and form virtually any sound imaginable. All this because our engineers didn't let a Nobel Prize stand in the way of some really great music.

**Roland®**

Roland Corporation, US, 7200 Dominion Circle, Los Angeles, CA 90040-3696 (213) 685-5141 Roland Canada Music Ltd., 5480 Parkwood Way, Richmond, B.C. V6Y 2M4 (604) 270-6626



## RECORDINGS



### Anderson Bruford Wakeman Howe, *An Evening of Yes Music Plus* (Herald, dist. by Caroline).

ABWH stumble a bit, then pick up momentum and finish with a flourish in this live double-CD set, recorded on the last night of their '89 tour. Vocals are consistently ragged, even where buttressed by sampled "aahs," and the rigid sameness of Bruford's electronic snare sound gets really annoying after a while. One needs an especially charitable attitude to get through the opening numbers, which highlight Jon Anderson's mediocre acoustic guitar plucking and rubber-duckish squeaks. Steve Howe follows with a few solo guitar things. Then Wakeman takes over: His three snippets from *Henry VIII* tear past like an express train on tracks of fire. Some of the gargantuan pieces that follow — "And You and I," "Long Distance Runaround" — create an unhappy impression of rhythmic obesity and aesthetic schizophrenia, but Wakeman's parts never falter. As the show rolls along, the sheer velocity of his solos lights a blaze under his colleagues. Though not especially rhythmic, Wakeman's nimble lines dart through the dark corners of each arrangement, nipping the beat here, flashing through a wide-open groove there. By the time we hit "Roundabout," the last song, the group is tearing it up with a vigor seldom captured in their studio efforts. Wakeman, supported by Julian Colbeck's backup keys, makes this an *Evening* to remember.

### Marillion, *Brave* (IRS).

*Brave* is a fist in the face of critics and prog rock purists who have never given this band the respect it deserves. In particular, it puts an end to all those odious comparisons to Genesis. Mark Kelly's performance resembles those of Tony Banks only at the most general level: Both work deep within the arrangement rather than scatter licks

all over the surface. But their textures, voicings, and lines display distinctly different approaches. (Okay, Mark. That's the last Banks reference. We promise.) Kelly cuts a commanding presence throughout the album, which tells the story of an amnesia victim's search for memories of her past. None of the variations in tempo, dynamics, and structure throws him, though some are extremely demanding. Whether sustaining a level of simplicity, as in the delicious piano accompaniment on "The Hollow Man," or stretching an opening synth drone through delicate harmonic permutations on the title cut, or uncorking a killer solo, such as the furious organ workout on "Hard As Love," he delivers. We're especially grateful for the imaginative synth work that helps us ingest some of Steve Hogarth's whinier vocals. More than just the strongest Marillion effort we've heard in years, *Brave* is an invitation to Mark Kelly to take his place in the pantheon of progressive keyboard luminaries.

### Herbie Hancock, *A Tribute to Miles Davis* (Qwest, dist. by Reprise).

If Miles had subbed for Moses on the Ten Commandments gig, he might have come off the stand with just one tablet, displaying a single word: "Listen." That's what Hancock and company do on this concert disc. Where most combos sleepwalk through "All Blues," content to approximate the Davis recording, Hancock, bassist Ron Carter, drummer Tony Williams, saxophonist Wayne Shorter, and young trumpet phenom Wallace Roney treat the familiar riff as a launching pad for free interactive flights, which soar and spin in dizzying double helixes. Ditto for "So What," kicked off at maybe three times the tempo of the original version. You might call this set irreverent — *cf* Roney's full-blooded screeches, and Carter's meandering intro to "All Blues." But playful is a better word, especially with players of this calibre, who understand the difference between "create" and "recreate." Hancock's majestic chords twist and tangle the structure of each tune; his comps slam against the beat, then ride it with the insouciance of a surfer on a tidal wave. His mark permeates every moment of this disc; when he lays out, the harmonic vacuum he leaves begs for his return. This, one of his best performances in years, captures Hancock at the peak of his



ROBERT L. DOERSCHUK



powers, with the fire of inspiration and the ice of discipline in perfect symbiosis. What better tribute could there be?



### FMob, *Once in a Blue Moon* (East West, 75 Rockefeller Pl., New York, NY 10019).

Denzil Foster and Thomas McElroy, the console wizards behind *En Vogue*, *Club Nouveau*, and *Tony Toni Toné*, follow the footsteps of Teddy Riley, Babyface, and other R&B producers with their own project. McElroy's piano break on the opening cut, "The Vibe," makes two points immediately clear: These guys know the jazz changes, and they don't need to sequence. Aside from a few drum samples, this is a live project, complete with horns. The result is a combination of elements — a dub-like repetition in the beat beneath some very free, post-hop blowing and vocal rapping. Others have experimented with this formula, but FMob takes it further than anyone we've heard. On such cuts as "We Came to Move Ya," the rhythm section makes the loop groove seem as if it had been designed for live interaction. There's plenty of room for development in this area; we still don't hear drummers and bassists

feeding off each other with the creative abandon of swing players. But that's the next obvious step; with McElroy spinning smooth piano lines on "One Love" and digging into the beat with flashy synth solos elsewhere on the album, FMob points the way toward truly exciting crosstalk between jazz and street.

### Jeff Beal, *Contemplations* (Triloka, 1327 Electric Ave., Venice, CA 90291).

Trumpeter Beal packs up his horn, dusts off his piano, and plugs in his synths. Bassist John Patitucci, guitarist Steve Cardenas, and especially singer Joan Beal, Jeff's wife, play important support roles, but mostly this is a solo shot. Several cuts are devoted to unaccompanied piano, to which Beal takes a thoughtful approach — no fireworks, spare voicings enhanced by gentle dissonances. Some of these sound improvised; others, such as "A Deux Mains," seem suspended in a Satiesque compositional web. The ensemble/electric selections evoke an autumnal atmosphere, with dark string pads bathed in a sea of reverb. At times Beal's fluid lines echo the work of Lyle Mays; elsewhere, as on "The Dance" and "Unquiet City," Weather Report echoes in his sus voicings and the easy way his chords move over a free percussion groove. These influences are, in fact, strong enough to open *Contemplations* to charges of being derivative. But Beal also shows a rare ability to hold onto and develop a single idea without wearing it out or losing focus. And on one track, "Discovery," Joan Beal's multitracked voice uncovers an almost ecclesiastical seed in his



## IN REVIEW

style that further distinguishes this artist from those who have plowed this field before.

**Various Artists, *The Devil's Staircase: Composers and Chaos*** (Soundprints, 192 Spadina Ave., Ste. 512, Toronto, Ontario, Canada).

The liner copy on this electronic compilation reveals that each piece

was written "using algorithmic techniques based on theories of chaos." We're not sure how chaos theory is applied to music, but the cyclic tinklings of John Celona's "Pacific Rims," the dramatic, stadium-rockish bravura of Bruno Degazio's "On Growth and Form" and "Heat-noise," the noise produced by Campbell Foster with a piece of sheet metal and two speakers on "Sheet Metal Music," and especially

the astonishing pastiche of voice and static on John Free's "A Conversation with John Cage," knock us out nonetheless. On the other hand, Robert Del Buono's "Night Voices," though generally compelling, meanders a bit. But wait! According to the album notes, there's a reason: The piece "documents an individual's experience with a recurring dream, which appears in various scales and in nu-

merous transformations." That very randomness that set our mind to wander was among the "attributes of fractals" deliberately utilized by the composer to "give the variations their generic quality." Maybe we should show more appreciation for "Night Voices," now that we have been enlightened. But there's enough going on throughout *The Devil's Staircase* to let the music speak for itself. ■

## FAST FORWARD



**Billy Taylor, *It's a Matter of Pride*** (GRP). Taylor celebrates his fiftieth — *fiftieth?* — year in music with a sparkling trio set. Backed by drummer Smitty Smith and bassist Christian McBride, he breezes through a selection of his own compositions. There's history in his hands — the solo intro, the structure, even the title to "His Name Was Martin" have an Ellingtonian aura — and enough life in his lines and assurance in his swing to forecast another half-century of class jazz.

**Ton of Bricks, *Keep Up*** (Marble Head, 815 Chenery St., San Francisco, CA 94131). The meter-mixing trickery of Gentle Giant, the rhythmic feel of early Yes, and the gloss of mellow fusion join forces in this solid, straight-ahead effort. When not sounding uncannily like Howard Jones on lead vocals, Ken Barsky shows off his chops on intricate synth passage-work and solos.

**Rev. Billy C. Wirtz, *Pianist Envy*** (Hightone, 220 Fourth St., #101, Oakland, CA 94607). On "Mennonite Surf Party" and other highlights from this live set, Rev. Wirtz plays more flat-out, raw rock and roll piano than, say, Mark Russell. And he gets a lot more laughs than Jerry Lee Lewis.

**John Brickman, (no words)** (Windham Hill). The label that transformed new age music from a granola store oddity to a yuppie phenomenon returns to solo piano with this release. Brickman's thoughtful composition, artful rubato, and delicate touch transcend the folk motifs and harmonies of his idiom.

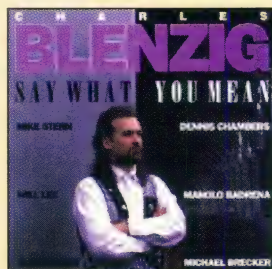
**Trauma, *Fractal 1*** (Futurist, 6 Greene St., 2nd Fl., New York, NY 10013). Hauke Harms, the keyboard half of this German duo, spreads

billowy, lush textures reminiscent of T-Dream or even Mark Knopfler over a stark, proto-techno framework. Not to be missed: Trauma's rework of Kraftwerk's "Radioaktivität," boldly stripped of drum tracks and set free to float in a breezeless electric sky.

**Midi Rain, *One*** (Vinyl Solution, dist. by Columbia). Impeccable and often inventive dance tracks. The pumping drum sequences and intricate counter-rhythms of *One* reveal all you need to know to hijack the techno bandwagon.

**Kevin Toney, *Lovescape*** (Ichiban, Box 724677, Atlanta, GA 31139-1677). A session veteran makes his solo debut with this set of EZ jazz/funk. Compositions are functional, with lots of vamp room to fill. Toney's rhythm tracks saunter agreeably; his solos, mostly on real or pseudo piano, follow the studio-bred tradition of spotless execution and determined unadventurousness.

**Himekami, *Journey to Zipangu*** (Higher Octave). Airy textures, glistening lead lines that blend plucked string and digital synth sounds, backup sequences that tinkle like raindrops, sing-song tunes. Yet Himekami's ear for fresh arrangement leads him beyond these familiar elements of Japanese electronic music toward a more original conception.



**Charles Blenzig, *Say What You Mean*** (Big World, Box 128, Brooklyn, NY 11225). An all-star neo-fusion outing, built on rich harmonic foundations and enlivened by Blenzig's sprightly and spirited synth leads. Extra credit for the "Caravan" arrangement, whose mysterious opening pads and inspired rhythmic explorations bril-

liantly reanimate the Ellington chestnut.

**Larry Kucharz, *Harmonic Luminosity*** (International Audiochrome, Box 1068, Rye, NY 10580). Minimalist computer works, structured tonally around concepts of obsessive repetition interspersed by silence and orchestrated in shimmering synthetic textures. Within these presumably self-imposed limitations, Kucharz achieves moments of real beauty. Imagine Steve Roach collaborating with Philip Glass.

**John Duncan, *Send*** (Soleilmoon, Box 83296, Portland, OR 97283). Everything changes in art except the avant-garde. For proof, check the latest package of static and noise from Duncan. Luigi Russolo did the same kind of stuff 70 years ago, back when absurd gestures had some meaning, before Futurism became a thing of the past.

**Modern Jazz Quartet, *A Celebration*** (Atlantic). The purity of a late-night jam set, moody even on the up-tempo tunes, is lovingly nurtured here by the MJQ and such guests as Freddie Hubbard, Bobby McFerrin, Sweets Edison, and Wynton and Branford Marsalis. John Lewis brings the Basie "less-is-all-you-need" approach to perfection once again.

**Slither, *PG-13*** (Analysis, 273 Chippewa Dr., Columbia, SC 29210-6508). Exuberant, low-budget techno, with plenty of slashing analog lines and antique drum machine timbres. Terrified sampled voices and a persistent cheesy gloom help *PG-13* sustain a delectable Grade-B horror-flick feel.

**"Papa John" De Francesco, *Doodlin'*** (Muse, 160 W. 71st St., New York, NY 10023). Son Joey gives the keys to Dad. Although John doesn't play quite as clean or dig into the pocket as deeply as Joey, he blows hard enough on Hammond to do the family proud.

**Symbian, *The Skywatcher*** (DA Music, Box 3, Little Silver, NJ 07739). Peter De Backer's filmy, shifting synth pads and sequences, punctuated occasionally by Johan Van den Abeele's sax and wind controller, work nearly as well as nature itself as a soundtrack for a day of gazing at clouds. ■



**NoteStation™**  
can be found  
at many fine  
retailers, including:

Beam Music  
Frazer, PA  
215-647-3647

Carter Music Co.  
Indianapolis, IN  
317-542-0183

Digital Arts  
Bloomington, IN  
812-330-0124

Don's Music Land  
Peoria, IL  
309-692-0854

Fred's Music Center  
Englewood, CO  
303-788-0707

Jim's Music Center  
Irvine, CA  
714-552-4280

Langlois  
Modesto, CA  
209-524-1355

Langlois  
Silverdale, WA  
206-698-2009

Mar-Cole Music  
Addison, IL  
708-980-3200

McMurray Music Co.  
St. Louis, MO  
314-428-8600

Music Center  
San Francisco, CA  
415-781-6023

Music Lovers Shoppe  
Rochester, NY  
716-442-0130

Pecknel Music Co.  
Greenville, SC  
803-244-7881

Russo Music Center  
Trenton, NJ  
609-888-0620

Shattinger Music Co.  
St. Louis, MO  
314-621-2408

Swain's House of Music  
Palo Alto, CA  
415-324-1635

Synphony Music  
Phoenix, AZ  
602-955-3590

Ted Brown Music Co.  
Tacoma, WA  
206-272-3211

Ward Brodt Music Co.  
Madison, WI  
608-271-1460

Westgate Music Center  
Westlake, OH  
216-835-0555

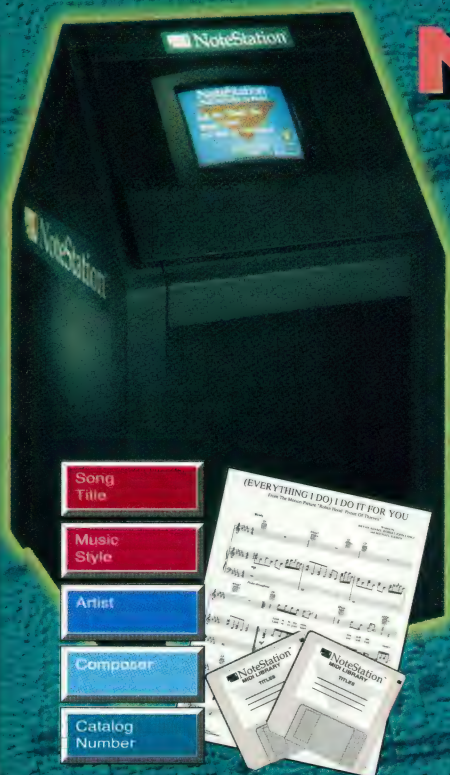
Whittaker Music  
Long Beach, CA  
310-598-2461

Long & McQuade  
Toronto, Ontario  
416-588-7886

Milestone Music  
Red Deer, Alberta  
403-347-1147

Musircle Inc.  
Dollard-Des-Ormes Eaux, Quebec  
514-696-8742

Tom Lee Music  
Vancouver, B.C.  
604-685-8471



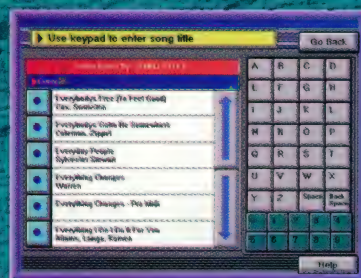
# NoteStation

**Sheet Music instantly  
printed in any key!  
Listen to MIDI files  
before you buy!  
Thousands of  
selections...  
at the touch  
of a finger!**

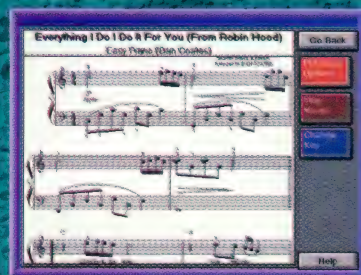
*We're revolutionizing the way sheet music and MIDI files are sold. NoteStation™ is a user-friendly kiosk with a color touchscreen display. State-of-the-art technology lets you browse, select, listen to, transpose and instantly print any of thousands of songs from the world's leading publishers.*

As Easy as 1, 2, 3...

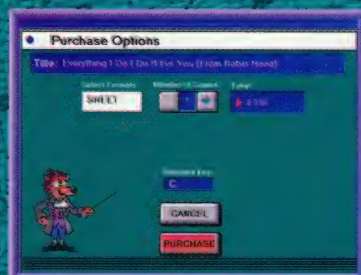
**1** Find your song  
by: Title, Artist,  
Composer, or  
even Music Style  
just by touching  
the screen!



**2** See it, hear it, even  
transpose it!  
NoteStation shows  
the music on screen  
and actually plays the  
most familiar part - in  
any key you want!



**3** After selecting your  
song and choosing  
your key...  
Touch the screen to  
confirm your purchase.  
It's that easy!

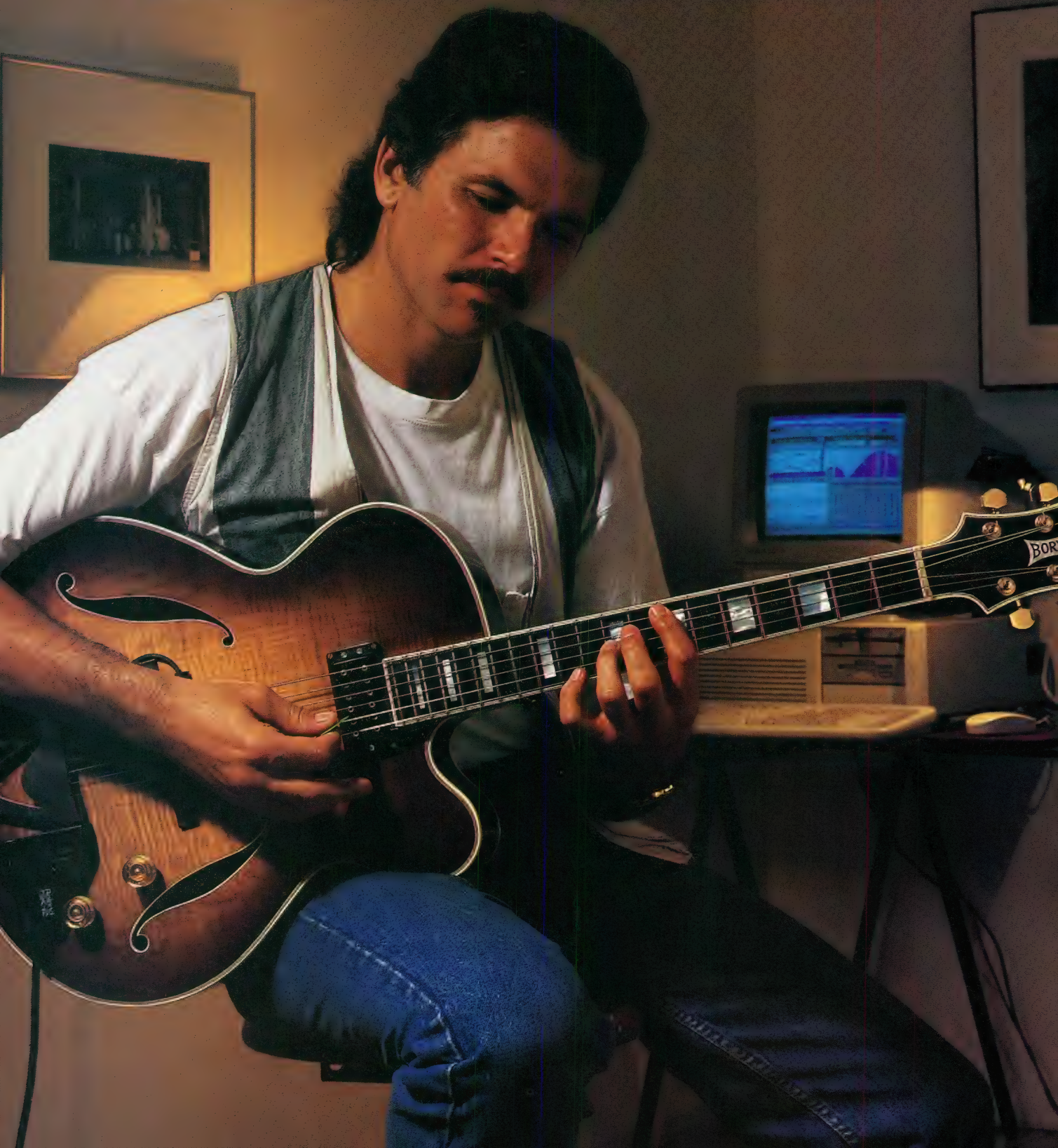


Send \$1.00 for a complete song list and  
the name of a dealer in your area to:  
**MusicWriter, Inc.**  
170 Knowles Drive, Suite 203  
Los Gatos, CA 95030 or call (800) 800-1663

 **MusicWriter, Inc.**  
**Sheet Music  
& MIDI Library**



WITH CAKEWALK,  
COMPOSING GREAT MUSIC IS  
NINETY-NINE PERCENT INSPIRATION,





# ONE PERCENT PERSPIRATION.



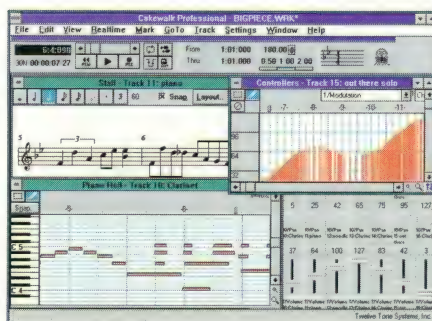
Cakewalk Professional for Windows™ 2.0 is the MIDI sequencer that's powerful enough to transform your inspirations into compositions. Yet it's no sweat to use.

## MAKE A NOTATION OF THIS.

Cakewalk Professional works in concert with you every step of the way. In fact, new version 2.0 not only helps you create your compositions, it also prints them. The multi-track Staff view lets you edit and print up to 16 staves in multiple key signatures, as well as title, performance instructions, author and copyright information. It even displays and prints triplets. All in the font size you select.

## YOU'LL LOVE THE VIEWS.

With Cakewalk Professional, composing music is an aural and visual experience. You can use the Piano



Roll view to insert, resize and move notes in a grid. The detailed Event List view lets you edit MIDI and multimedia events on multiple tracks at once. Use the Track/Measure view to assign track parameters like MIDI channels, instrument patches and key offsets, even in real-time.

**Cakewalk**  
PROFESSIONAL  
f o r W i n d o w s

Other extraordinary Cakewalk Professional features include a Controllers view, a variable timebase of up to 480 pulses per quarter note, a Markers view for creating text "hit points," an Event Filter and on-line help screens.

## NEW WAYS TO COMPOSE YOURSELF.

Cakewalk Professional 2.0 offers other new features like:

- Play List view for live performance
- 48 assignable faders (16 sliders, 32 knobs)
- Real-time editing
- Remote control from MIDI keyboard
- "Hot Key" macros
- Loop record
- Punch record on the fly
- Big Time display

## INSPIRED YET?

If you feel inspired to find out more about Cakewalk Professional for Windows 2.0, or to learn the name of the dealer nearest you, give us a call at **800-234-1171** or **617-926-2480**. Cakewalk Professional lists for just \$349. If you'd like, we'll send you a demo disk for just \$5 so you can see and hear Cakewalk Professional for yourself.

System Requirements: IBM PC with 10 MHz 80286 or higher, 2 MB of RAM, mouse; Microsoft Windows 3.1. Supports any combination of up to 16 MIDI ports on devices with Multimedia Extensions drivers (including Roland MPU-401 compatibles and Music Quest MQX interfaces). Cakewalk Professional for Windows is a trademark of Twelve Tone Systems. Other products mentioned are trademarks of their respective owners.



Twelve  
Tone

S Y S T E M S  
P.O. Box 760, Watertown, MA 02272







t h e **g o o d**  
**the** **BAD**  
**and the**  
**Noisy**

...this kinda grunge ain't from Seattle

How Four of  
Hip-Hop's  
Finest are Taking  
**SAMPLERS**  
to New Lows

by **Greg Rule**


 Scratchy drum loops, audio newsbytes, riffs from the Godfather of Soul . . . for better or for worse, samplers have forever changed the way we create and perceive music. Is it merely a fascination with the past, a desire to recycle and repackage music of a bygone era? Or perhaps a byproduct

Illustration: **Rich Borge/Gravity Workshop**



# S a m p l i n g NATION HIP-HOP

of our rapid-fire MTV culture? Whatever. One thing is certain: We live in a sampling nation, and the forecast calls for more of the same. Lot's more.

Take hip-hop, a genre rife with microchips. A genre where samplers are no longer items of luxury, but dire necessities. "In the early 1980s," says Dres of Black Sheep, "we only had turntables and a Korg beat box. We were spinnin' records, catchin' beats and this, that, and the other, and we kept thinking, 'Damn, if only there was a machine that would play this stuff over and over and over.' We were wishing for samplers before they were really out." As did multi-platinum producer/recording artist Erick Sermon, who reports, "Back then, we were samplin' the funk, but we were using straight-up quarter-inch tape to do it. You know, makin' loops that went all the way around the room."

The practice of recycling vintage vinyl laid a red carpet path for the arrival of sampling

in hop-hop, but it took a few years for the technology to catch on; most first-generation machines were incredibly expensive, not to mention Sherman tank portable. More than anything it was the arrival of affordable units (the Ensoniq Mirage, for one), sampling drum machines (E-mu's SP-1200), and the marriage of one-shot samplers and DJ mixers that gave hip-hop its digital foundation.

Today, artists from both the old and new schools seem unified in their support for sampling technology. What differs are the techniques used to achieve the end results. A rare few are power junkies who love twisting sounds inside-out electronically. The majority could care less about such things as sample resolution, editing capabilities, and the like. The ruder and cruder a sample, and the smaller and simpler the setup, the better.

Erick Sermon falls into that category. In his case, a Roland W-30 is the sole machine of choice. "I don't want to learn nothin' else," he insists. Sermon used that unit exclusively to produce tracks by Run D.M.C., En Vogue, and Heavy D, among others. Similarly, Dres and Del the Funkyhomosapien each rely primarily on one piece of gear — a Numark sampling DJ mixer and an E-mu SP-1200 sampling drum machine, respectively.

Keyboard interviewed four sample-savvy

hip-hop artists recently (a similar feature on techno music begins on page 45). What we ended up with was a stack of cassettes and an earful of diametrically diverse opinions on the state of samplers and sampling.



**ERICK SERMON.** From his work with the platinum-selling EPMD (*Strictly Business*, *Unfinished Business*, *Business As Usual*, and *Business Never Personal* on Def Jam) to his latest solo effort, *No Pressure* (also on Def Jam), Erick "the green-eyed bandit" Sermon has helped define and redefine the funky edge of hip-hop. In this concise interview, Sermon reflects back on the days when he used tape loops as "samples," and explains why his tracks are typically dark and muddy in character.

*You've been called one of the pioneers of the hip-hop sampling scene — using tape loops to capture beats and breaks long before samplers became accepted in the field. What was your approach to sampling back then?*

I had no idea what was going on at the time. I was just doing what I thought was supposed to be happening in rap. I was sampling the funk, making loops, and that was my thing.

*Did you scavenge record stores for source material?*

Nah, never record shops. I always went to friends' houses to get stuff. I got the Roger [Troutman of Zapp] collection, Funkadelic, Parliament, Johnny Guitar Washington, Steve Arrington, the Bootsy [Collins] collection. It became a technique of knowing what to sample to make the record sell — maybe a different kind of loop, a snare sound, whatever. What I'd do is, if I was trying to get a sample and there was something on top of it, vocals or whatever, then I'd sample it and then filter off all the top. You can sample a record that has everything on it, but you can cut off the voice and still have the groove underneath.

*There's a low-end, dark quality to some of your tracks — a result of just that, no doubt.*

Yeah. I'd rather my songs be low and muddy. Pop music is about cleanness. That's not what rap is about. Rap is the street. Know what I'm sayin'?

*What kind of loops were you generally looking for — solo drum breaks, guitar riffs?*

I usually take the whole loop, all the instruments. Lately, though, I've been getting into doing my own bass lines — playing my own grooves, and just getting samples of guitars and different sounds.

*Do you ever record "real life" sounds with a DAT machine?*

The problem with  
sampling is greedy  
artists. . . . Okay,  
we didn't create  
the sound, but we  
did something new  
with it. Maybe we  
helped that artist  
capture an audience  
that had forgotten  
about them. They  
should be flattered.

**Dres**



**Lawnge**

**Dres**



I have a tape recorder, and if I hear a sound from the radio or TV, then maybe I'll get a piece of it. Maybe I'll flip it around backwards or something. Lots of stations are playing oldies but goodies now, so I'm hearing a lot of stuff I've never heard before. "Damn, what's that?" So I'll take it and use it for an idea.

*Using your new record as an example, how many samples did you layer at any given time?*

Eight. That's all the Roland W-30 lets you do. I love the way it sounds. It's dirty, and the bass is heavy. That's the sampler I've been using ever since [EPMD's] "Crossover." The whole *Redman* album was done on that, and *everyone* else's who I produced: Boss, Run D.M.C., En Vogue, Heavy D.

*You could use virtually any sampler out there, many of which are much more powerful than the W-30. What attracts you to that particular machine?*

I take it for what it is. I mean, I've got everything in my studio: two [E-mu] Emaxes, an [Akai] MPC-60, Akai samplers, drum machines, all kinds of stuff. But I only use the W-30. That's the weird part about it, I don't want to learn nothin' else. It's the one I know.

*When you take a sample, do you usually try to slice and dice it enough so it becomes unrecognizable?*

No. I can't. That's not being true. I have to get that [original] effect on my record. I have to get that funk. People always say, "How do you get your stuff cleared?" Or, "Why do you let someone else get your publishing money?" I don't care about that part. I want to make a hit record. Period.

*So you call the artist and get permission to use their samples?*

Oh yeah. Like Roger [Troutman] . . . he's my main guy. I'm cool with him. I talk to him on the phone all the time.

*But even though you're friends, you still pay him royalties, right?*

Yeah. But I don't have to go through no lawyers or paperwork with him.

*What about playing live — do you use samplers onstage?*

Nah, some people do, but I don't. I just use turntables. I make my beats and then I print them. I have them printed [pressed] on vinyl.

*What's your forecast for the future of this technology as it applies to the hip-hop world?*

Samplers are here to stay. They ain't goin' nowhere. It's gonna get more advanced, and people are gonna find new ways to do things. What's gonna happen is . . . well, this is what I'm doin' right now: Every sound that Parliament made, every keyboard they used, drum set, every instrument that they had, I'm buyin' every last piece of it. Whatever instrument Roger Troutman used, I'm buying every

# Clearing **your** SAMPLES

Attorney **NED HEARN** Tells You How

✂ So you've decided to sample Vanilla Ice (we'll forgo the wisecracks). The one-bar bass line you've snatched might end up on your next record, so how do you make sure Ice won't sue your pants off when the tune hits? Entertainment business attorney Ned Hearn knows.

"When you sample material from another artist, you'll need to get at least two clearances: There's one person or entity who owns the copyright of the *sound* recording, and there's another person or entity who owns the copyright of the *music* that is embodied on the recording.

"For the sound ownership rights, usually you have to go to the record label for permission. Technically, the label doesn't have to give you permission, but most labels do. You may have to pay a flat fee; for example, some labels will charge \$1,500 or \$2,000 for permission, or they might charge a royalty based on units sold. In some cases that \$1,500 or \$2,000 may even be viewed as an advance against royalty earnings from sales of the record. Some labels may do what's called a 'modified buyout.' They may say, 'Okay, \$2,000, but if you sell more than 100,000 units, you have to start paying us a per-unit royalty or an additional lump sum.'

"On the music side, you'll have to go to the owner of the music publishing and get permission from that person or company. [The publisher's name can almost always be found in the album's

liner notes. Contact them through ASCAP or BMI in New York or Los Angeles.] That could result in a number of scenarios also: It could be a flat fee, it could be a per-unit royalty, a combination of both, or, depending on how much is used, it may also require giving some publishing ownership in your song to that person or entity. Also, the label and music publisher may have to go to the artist and writer for their consent.

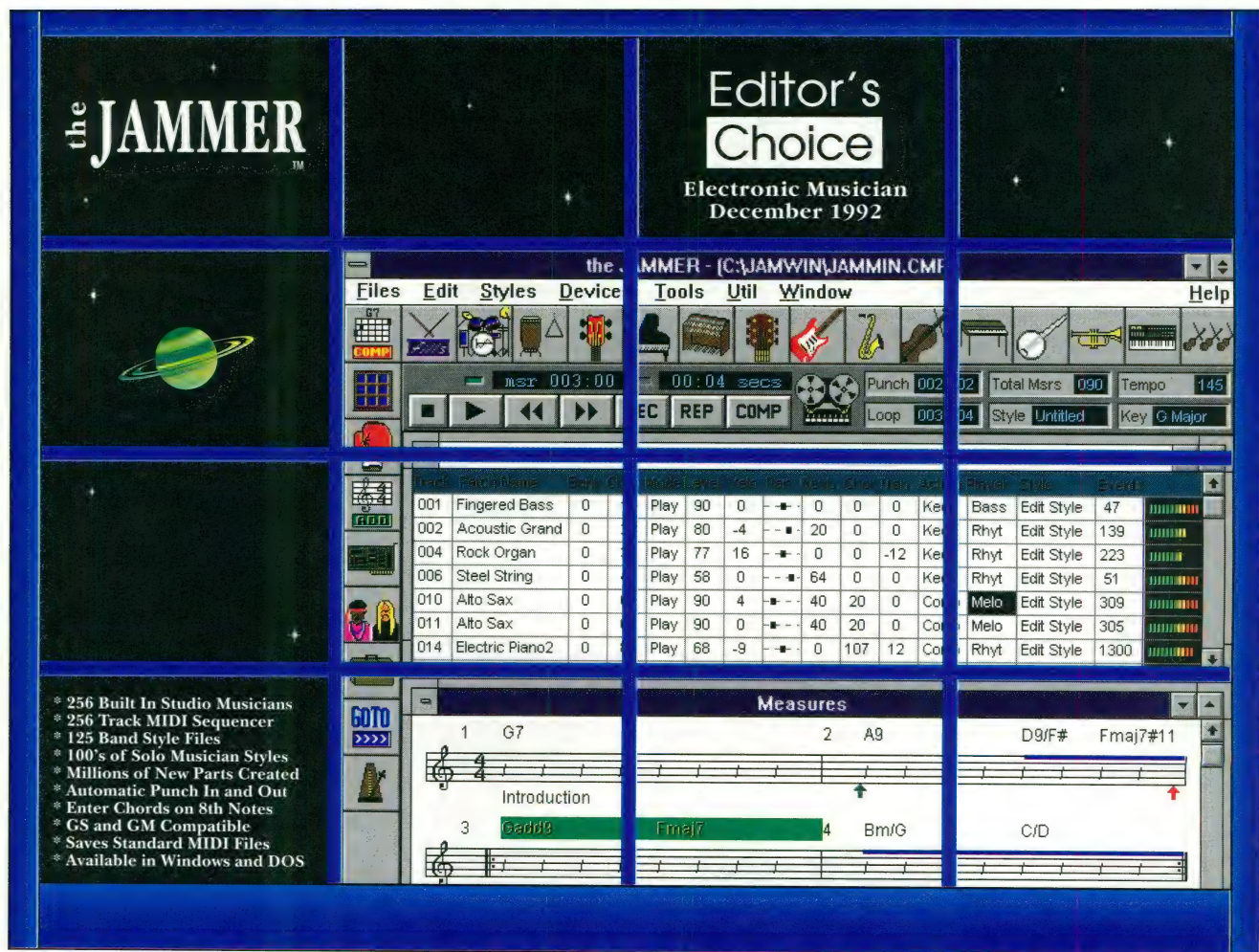
"One other point: If you figure out how to emulate a passage — recreate it without actually sampling it — you won't need permission from the record company to do that, but you would still need permission from the publisher."



Even more confusing, perhaps, is the definition of a sample. Is permission required for sampling one note from another artist's record? According to Hearn, the topic is still being debated. "As far as I know, there is no statutory definition. The biggest case to come down with a substantial judgment was the one involving rapper Biz Markie. He [illegally] used a lot of Gilbert O'Sullivan's material and wound up being hit pretty hard for that. The label had to pull the album off the market and pay a judgment and high legal fees, which was a hardship for the label as well as the artist who had agreed to indemnify the label." If there's a moral to this story, it's that you'd better be safe than sorry.

—Greg Rule



# NOW AVAILABLE IN WINDOWS ...



Take a seat in the Producer's Chair and get ready to create a musical masterpiece. An array of talented Studio Musicians and a 256 track  MIDI Studio are all at your command. Not to be confused with 'automatic accompaniment' programs which play back 'canned' or pre-recorded parts, the JAMMER combines music theory, artificial intelligence and randomness to create new quality musical parts for you each time you recompose. You bring the musicians in and out, you select the measures to be composed, you control the style of each musician  on each track. You set the levels, pans, effects, and do the final mixdown. You control it All! We took the time-consuming work out of creating music, but when it comes to control ... We saved it all for you.

To Order Call 404.497.0375

Recorded DEMO : 404.623.5887  
DEMO DISK available for \$ 5.00

**the JAMMER**™  
"The Complete PC MIDI Studio"  
( Studio Musicians Included )



JAMMER Standard : 256 Track Studio + 125 Band Styles ( \$ 99.00 )

JAMMER PRO : 256 Track Studio + 125 Band Styles + Extensive Control over Individual Musician Styles ( \$ 199.00 )

Soundtrek 3384 Hill Dr. Suite K, Duluth GA 30136 Voice 404.497.0375 Fax 404.623.3054 Recorded Demo 404.623.5887



# S a m p l i n g NATION HIP-HOP

last piece of it. People are gonna listen to my records and say, "I wonder where he got those funky old sounds from?"

**DRES (BLACK SHEEP).** Dres and Lawnge, collectively Black Sheep, burst onto the scene in 1991 with *A Wolf in Sheep's Clothing* (Mercury), a record that sold nearly one million copies. Their follow-up, *Non Fiction*, should be available by the time you read this. Just recently, Black Sheep formed One Love Records, a label headed by the band and whose material will be distributed and promoted by Mercury. In this interview, Dres explains the minimal setup used to create Black Sheep's music, and he takes a few choice shots at artists who ask a ridiculous price for the right to be sampled.

*What role do samplers typically play in your music?*

For us it's a matter of layering. It's a matter of taking snippets. It's not about taking whole loops the way some artists do. It's more along the lines of taking pieces, abstract pieces, and layering those with other pieces to create our own sound. You want to create a certain atmosphere with your loop.

*Originally you used a combination of turntables and drum machines. What gear do you use today to create your music?*

The heart of our system is a Numark sampling mixer. That's what we use. That's what we know. In fact, that's all we use to sample with.



*No stand-alone samplers?*

None.

*So you're not at all concerned with such things as editing features, sample quality, and so on?*

Nope. None of it.

*Once you've captured your samples, though, how do you archive them?*

We run it to DAT, and then we sample off that. I have DATs and DATs and DATs of sounds.

*What kinds of things do you sample?*

Almost everything comes off vinyl. There's so much sound out there, so many different spectrums of music.

*Have you run into any problems . . .*

. . . problems, yeah, let me tell you. The problem with sampling is greedy artists. I

**If I was trying to get a sample and there was something on top of it, vocals or whatever, I'd sample it and then filter off all the top. . . . I'd rather my songs be low and muddy.**

**Erick Sermon**

mean, we're very much into paying homage. We're not out to jerk anyone. But we look at it like . . . okay, we didn't create the sound, but we did something new with it. Maybe we helped that artist capture an audience that had forgotten about them. They should be flattered.

*We've heard stories about artists who wanted incredible amounts of money for the rights to their samples — even short, almost unrecognizable things.*

Their egos are fuckin' incredible. The amount of money people ask for . . . I mean, okay, if it's some shit that's obvious — something like what Vanilla Ice did, for example — then yeah, they're entitled to a percentage. But I think people need to look at this more as a form of expression. It's creating jobs, it's



**Anybody with a sampler can make a beat. But to get deep into it, to really try to be an artist, it takes a lot more work than that.**  
**Del the Funkyhomosapien**



# S a m p l i n g NATION HIP-HOP

creating revenue, it's doing positive things. But too many motherfuckers take it from the angle of, "You're messin' with my material." It's an ego problem. There are people out there who make you *not* want to clear it with 'em. But for the ones who are cool, "Yo, peace, and we hope we've done you proud."

*Do you call those artists ahead of time?*

Yeah. We've cleared all of our samples. Our first album had over 40 samples on it.

*When you perform live, do you bring in extra keyboardists or sampling gear in order to reproduce the material accurately?*

Nah, we run everything off DAT or we run off vinyl. We do different things. That's the cool thing about live. You can take the songs back into the studio and make show tapes, remixes, whatever. For the listeners it's cool, because you've taken something that they like and created a new thing from it.

*Because so many hip-hop artists use loops as their musical backdrops, do you think the genre has been given a bad rap?*

I think what we do is just as artistic as anyone who can play Beethoven, or whatever. I can't even describe how much work goes into making this music, the hours we put into it, and how trained our ears have become because of it. I know for a fact that this isn't something that anyone can just jump in and do. Lawnce and I have been at this since junior high school. Nobody can tell me that what we do isn't artistic.

*What advice relevant to sampling would you give up-and-coming musicians who hope to follow in your footsteps?*

Be resourceful. A lot of kids come up to me and they don't have the money to buy a lot of the expensive shit. I try to tell them, it doesn't matter what you have, or where you're at, just use what you've got. Sure it always seems like things would be better or easier if you had some other piece of gear or whatever, but you can get your point across with whatever you've got. Look at us.

**DEL THE FUNKYHOMOSAPIEN.** The cousin of rap superstar Ice Cube, Del is one of the most talented and promising young artists on the scene. He has released a pair of records on Elektra, *I Wish My Brother George Was Here* and, just recently, *No Need for Alarm*. Like the two artists above, he doesn't require too much gear to get the job done (in this case, an E-mu SP-1200).



**Even if I'm doing drum programming or analog synth things, I'll almost always sample those sounds first and then work from there. The sampler is everything. It's the most important piece in my setup.**

**Angel C.**

Want to know how to "freak" a-track? Del gives us a few pointers.

*What's your take on sampling rights?*

The fact that you have to clear so many samples — samples that shouldn't even need to be cleared — disappoints me. It's big business, man. "We want our money." That's the bottom line, all the time. And it don't have to be like that. I mean, I could sample some shit that ain't nobody heard from in years. It don't even sound like the same song, but I've still gotta report it. I've still gotta tell my record company where it came from.

*What if you turned on the radio and heard a tune that had a bunch of samples lifted from your new record — and they hadn't been cleared?*

It all depends on if they freaked it or not. If it sounds just like what I did — if they tried to sample my shit just to sell records — that's a whole different thing than tryin' to be creative. But if they took it and made it into something totally new, then I'd be like, "Damn, they freaked it." But if they used it weaker than I did, then I'd be like, "Shit, I freaked it way more than they did."

*How do you freak a track?*

There's a certain way I do things, a certain way I sample, certain things I do that other people don't do. I ain't about takin' full loops, know what I'm sayin'? Most of the time I'm trying to chop shit up. I have a few loops on

my album, but when I use those . . . I don't start the loop from the one. Instead, I might start from the three, making that the one, and it won't even sound like the same song. And not even sampling four bars; I might only sample two and repeat it, or sample two bars and then make the third and fourth bars slower. There's hella different ways to do things, tricks. Just keep in mind, we're really trying to be technicians in this field. We ain't just throwin' shit together. Anybody with a sampler can make a beat, period. That's what it's made for: to sample. But to get deep into it, to really try to be an artist, it takes a lot more work than that.

*What's your sampler of choice?*

The [E-mu] SP-1200. That's my favorite. Sometimes I work with the [Ensoniq] EPS. A lot of my crew, the Hieroglyphics, work with the EPS. You get cleaner samples, you get more sampling time, you can take out all the bass, you can take out all the treble, you can really fuck with the sample. With the SP, there's less things you can do, but since it's a drum machine, it sounds a lot rougher. I just like the sound of it.

*Do features such as sample resolution mean much to you?*

Nah, when shit is soundin' hella clean and perfect, it sounds like pop to me. I like that rough sound. That's what I've been listening to for years, stuff that sounds like a demo almost. It sounds like the raw shit. If



# NOW YOU CAN... HAVE IT ALL!

**NOW  
GENERAL  
MIDI  
COMPATIBLE!**



“The TS-10 is to synthesizers today what the Prophet 5 and DX-7 were in their days – amazing!”

**Peter Wolf**  
Composer/Keyboardist/  
Producer

“Great sounds, a world-class sequencer, intuitive interface, and effects as good as any I’ve heard – it’s got it all!”

**Richard Hilton**  
Keyboardist/Programmer  
w/ Nile Rodgers

“...a keyboard that goes out of its way to make things easy for the player. The TS-10 has a feel of having been designed by performing musicians.”

**Martin Russ**  
Sound On Sound (UK)

“The best keyboard I’ve ever played!”

**Eric Melton**  
Another Satisfied  
Customer

Is it possible to get a single keyboard that offers the best sounds, effects, performance and composition features, and is easy to use? Yes—all you need is a TS-10. We’ve built upon our expertise in synthesis, sampling, effects processing, and sequencing to create an instrument that will take you from first inspiration to final mix.

What makes the TS-10 so special? If you need realistic sampled instruments, *it has them*. Strong analog patches? *No problem*. Swept wavetable timbres? *Got them*. Wave-sequencing that is easy to use? *Ditto*. High-quality effects? *Sure—73 algorithms derived from our DP/4, with 692 built-in variations*. No other synth offers this combination of sound generating possibilities.

The TS-10 can also load our large library of sampled sounds—play them, edit them, use them in sequences or in combination with synthesized sounds. And only ENSONIQ could offer auto-loading of these sounds from disk or optional SCSI—making it easy to switch between different setups quickly.

Want more? Our acclaimed 24-track sequencer includes advanced features like audition, tempo track, and

percentage/swing quantization. And our polyphonic aftertouch keyboard and real-time performance editing bring out the expression in your performances.

But it’s the integration of these powerful features and ease-of-use that makes the TS-10 so special. Musicians everywhere agree—just check out their comments.

Get it all for yourself. Call 1-800-553-5151 for the ENSONIQ dealer nearest you.

**ensoniq®**

THE TECHNOLOGY THAT PERFORMS

☐ Yes, I want to have it all! Please send me more information on the ENSONIQ TS-10.

Also, please send me information on

- ☐ KS-32 Weighted Action MIDI Studio
- ☐ SQ Series Personal Music Studios
- ☐ ASR-10 Advanced Sampling Recorder
- ☐ DP/4 Parallel Effects Processor
- ☐ KMX Programmable MIDI Patch Bays

Mail to: ENSONIQ  
Department K-42  
155 Great Valley Parkway  
P.O. Box 3035  
Malvern, PA 19355-0735

Name

Address

City  State  Zip

Phone (  )





# Sampling NATION HIP-HOP

I have a choice, I'll sample at the lowest rate, just because I like the sound, and it takes less memory. Sometimes, if it's a voice or something, then I might sample it a little cleaner just so you can hear it better, but as far as drums and shit, nah.

*Do you usually sample drum loops, or do you program beats into a drum machine?*

I used a few loops on my record, but most beats that I do are usually programmed. I have disks of drum sounds that I've sampled from all over the place. But I mix it up sometimes.

*What do you think of the new pre-fab drum sampling discs?*

Nah, I haven't checked into those. But if I find 'em, and they have some fresh shit on 'em, then I'll use it. I ain't payin' them fools, though.

*Give us an example of how you construct a song.*

On "In and Out" [No Need for Alarm], I sampled a drum break from the remix of

De La Soul's "Say No Go," and then added some [Roland TR-] 808 kicks under it. Then I sampled one note of a bass from a reggae record, and I played this simple bass line. It sounded weird. I put this bubbly water effect in the back, and sampled a jazz horn. That's basically how I did that song.

*Where did you get the water sound?*

From a sound-effects record. I've got a lot of those.

*When you truncate your loops, do you ever cut them unevenly on purpose?*

Nah, I usually always try to have my shit on time. When I hear loops that are off, it makes me think the person doesn't know how to use their machine.

*Is there anything you wish samplers did that they don't do now?*

Not really. I just wish the SP-1200 had more sampling time. I mean, I can do it good enough now to make a full song; I know how to get around that ten second shit. I just use so many little pieces and pile 'em on top of each other that it sounds like a full song. But if it had more sampling time, I know they'd sell a hell a lot more of 'em.

*How do you recreate your music live?*

Usually I just go off DAT. Right now, I'm having records of my shit pressed, instrumental versions of all my songs. That makes it

easier if we decide to, "Yo, stop!" Breakdown, whatever. We can freestyle. I might also have a drum machine onstage too, just load up a beat and, "Man, we're about to freak this."

*What do you think about using live players, a live drummer maybe?*

Nah, I can't fuck with that shit. It's a different thing. Hip-hop has always been about sampling or turntables.

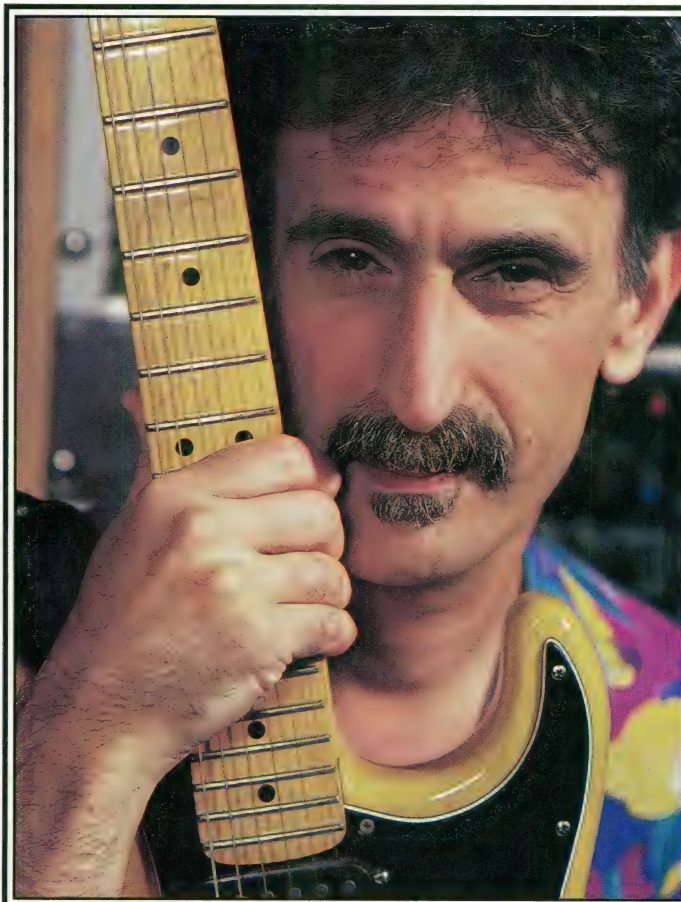
**ANGEL C.** Being a white female in the hip-hop world might buck a few stereotypes, but newcomer Angel C. isn't about to let genetics interfere with the music she loves. Unlike the above artists, she's a certified gear-head. And proud of it. Here she gives us a peek at the making of her latest single "Spirit of Love." Look for her debut CD EP, *The Angel* on Interscope.

*What role did samplers play on your new single?*

I did a lot of sampling this time. Normally I'm more clever about disguising it, but this is probably the most up-front sampling I've ever done. We cleared 'em though, so it's okay.

*What kinds of things did you sample?*

I sampled something from Kool And The Gang, and I took another sample from a track



## Best of Guitar Player

PRESENTS

ABSOLUTELY  
FRANK

Frank Zappa: Rebel, Satirist,  
Classical Composer, Demon Bandleader...  
and also one of the most consistently  
amazing rock guitarists in the world.  
Historic In-Depth Interviews from the  
pages of *Guitar Player*, *Keyboard*, & last  
year's special *Zappa!* issue.

**ON SALE EVERYWHERE!**



# HAVE IT ALL...AND MORE.

**NOW  
GENERAL  
MIDI  
COMPATIBLE!**



▽ "It has a great 'personality', with some new and unique sounds that other synths don't offer."  
**Jeff Lorber**  
Recording Artist/Producer

▽ "The TS-12 is easy to use, it sounds incredible, and best of all—it's just plain fun to play!"  
**Edgar Winter**  
Recording Artist/  
Composer/Performer

▽ "The smooth, deep, weighted action makes ENSONIQ's synth a big winner."  
**Steve Oppenheimer**  
Products Editor, Electronic  
Musician Magazine

▽ "Anything else feels like a toy."  
**Bernice Green**  
Another Satisfied  
Customer

Looking for a state-of-the-art synth that gives you the feel of a real piano? Look no further than our new TS-12 Performance/Composition Synthesizer. You'll find a keyboard with all of the advanced features of our TS-10, combined with the 76-key weighted keyboard action from our best-selling KS-32.



The TS-12's 300 sounds cover a wide selection of keyboards, other natural instruments, and synthetic timbres. Our Hyper-Wave™ technology gives you wave-sequenced sounds and rhythmic loops. And the ability to load sampled sounds guarantees you'll be able to add new sounds when you need them. No other synthesizer offers this unprecedented combination of sound-producing possibilities.

For writing and arranging there is no better tool than the TS-12's 24-track sequencer. Powerful editing combined with musical features gives you a fast and friendly place to create your music.

The most compelling reason to own a TS-12 can't be experienced in an ad—you'll have to feel its smooth and responsive action for yourself. For now, check out what top players, reviewers, and customers think. Then see for yourself,

by visiting your local Authorized ENSONIQ Dealer. Once you feel and hear the TS-12, you'll be convinced. And more.

Call 1-800-553-5151 for the dealer nearest you.

**ensoniq®**

THE TECHNOLOGY THAT PERFORMS

☐ Yes, I want to have it all! Please send me more information on the ENSONIQ TS-12 and TS-10.

Also, please send me information on

- ☐ KS-32 Weighted Action MIDI Studio
- ☐ SQ Series Personal Music Studios
- ☐ ASR-10 Advanced Sampling Recorder
- ☐ DP/4 Parallel Effects Processor
- ☐ KMX Programmable MIDI Patch Bays

Mail to: ENSONIQ  
Department K-43  
155 Great Valley Parkway  
P.O. Box 3035  
Malvern, PA 19355-0735

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone ( ) \_\_\_\_\_



# Sampling NATION HIP-HOP

called "Funky Music Is the Thing" — I can't remember who the artist was. The two songs were completely different. Different tempos. Different keys. So in order to get them in the same time and same pitch, I had to do a hell of a lotta time stretching and compressing.

*What did you do that with?*

I used an [Akai] S1000. Even though it's been superseded by the S1100, 2000, and

3000, I still use it. It has a total of about 12 megs now.

*So you do all of the editing internally with the 1000?*

Yeah. I didn't really feel the need to use a computer editor, although I know digital editing. In this particular instance, and I don't do this with most of my tracks, I started out with those two samples and played a lot of original things around them.

*What were in those samples?*

From Kool And The Gang, some of the stuff I took had bass, drums, guitar, and even some people saying things — not a proper vocal, more like an atmosphere. The other part was a section with a flute, and I layered

that with other breaks and other drum programming that I did. There's a lot in there. It's really layered, and nothing is verbatim. That's how I tend to do things. There's a guitar part on "Spirit of Love" that was played by one of my guys. I had him play along to the track, and then I resampled what he did and completely changed it.

*What kinds of changes are you talking about?*

I took a section that I liked, and kind of mixed and matched it with other sections — in essence, rewriting the line.

*A block style of editing, then.*

Yeah, like taking a couple of beats — not even a full bar — and then taking a couple of beats from somewhere else and inverting them.

*How long have you been using samplers?*

I had an [Akai] S900 to begin with, so however old that is. I got one of those when they first came out, and I've upgraded as I've gone along.

*Has your perception of sound — be it background noise from a city street, or whatever — changed much since you started sampling?*

Oh yeah, I do the most ridiculous things. Sometimes if people leave me messages on my answering machine, I'll save them because I know that I'll want to do something with it. I go nuts with that kind of thing. Maybe it's because I produce, but I have a real abstract way of foreseeing or hearing how things are going to sound layered together before I actually do it.

*What's one of your favorite sampling tips?*

One thing I like to do is distress a sound. Maybe I'll have something really clean, someone talking, or whatever. So I'll stick it on a cassette, mike it, and put it through my speakers. Then I'll take it back and forth a few times until it sounds really crappy, and then sample it.

*How are you going to reproduce this music live?*

We're just working that out now. The truth is, I can reproduce everything live with a normal band, but the vibe of the thing can never be exactly the same as it is on record. That's a little bit of a worry. I think ultimately, if I could have it anyway I wanted it, I would have about an eight-piece band plus a deejay who could run some of the breaks, because I often layer breaks plus my own drum programming. I layer so much stuff, I'd need an octopus to play it.

*Final thoughts?*

Even if I'm doing drum programming or analog synth things, I'll almost always sample those sounds first and then work from there. Basically, the sampler is everything. It's the most important piece in my setup. ■

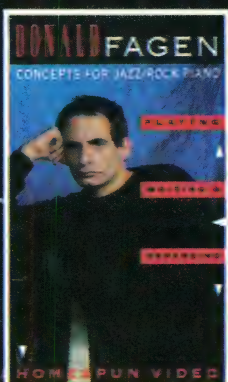
## TAKE A LESSON FROM

# DONALD FAGEN

Learn how one of the most influential songwriters in American popular music creates his powerful arrangements.

**Donald Fagen** reveals the musical thinking behind some typical **Steely Dan** songs (penned with partner Walter Becker), as well as two of his own solo works. In a fascinating musical exchange with jazz pianist **Warren Bernhardt**, he breaks down sophisticated jazz/rock compositions that evolved from familiar 12-bar blues. He analyzes *Chain Lightning*, *Peg*, *Josie*, *On The Dunes* and *Teahouse On The Tracks*, teaching each song's structure, harmonic and rhythmic characteristics, intro and riff ideas, and other devices.

All musicians will gain powerful tools to enhance their own playing, writing and arranging!



### CONCEPTS FOR

### JAZZ/ROCK PIANO

PLAYING, WRITING  
AND ARRANGING  
taught by **DONALD FAGEN**

70-MIN. VIDEO \$49.95 + \$4.50 P&H  
VISA/MASTERCARD/DISCOVER  
NYS ADD 7% SALES TAX

CALL 1-800-33-TAPES

914-246-2550 FAX #914-246-5282

OR WRITE: HOMESPUN VIDEO  
BOX 694K, WOODSTOCK, NY 12498

A HOMESPUN VIDEO EXCLUSIVE



# SAMPLER OR STUDIO?



## The new ASR-10 Version 2 gives you both.

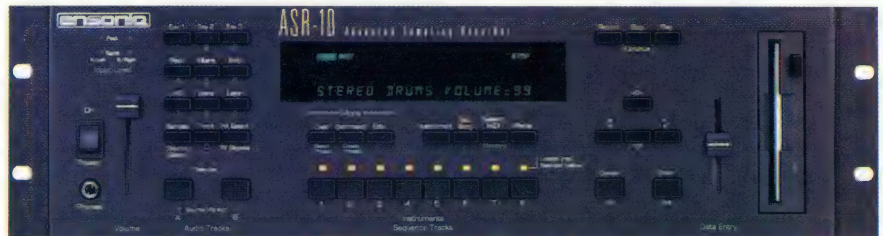
Version 2 of the ASR-10 Advanced Sampling Recorder is *now available*, with two tracks of digital audio recording.

It's the only instrument that combines digital audio recording with all the features of a professional sampling workstation. Here's a few things you can do:

- Play some of the best sampled sounds available, with unmatched expressive control
- Create high-quality stereo samples using a wealth of editing features
- Sing or play through state of the art onboard effects
- Capture your musical ideas quickly and easily with an onboard MIDI sequencer

• Record your live performance to RAM or SCSI disk. Edit with punch in/out and unlimited bounce down capabilities

Buy a sampler and take home a complete digital studio. Call 1-800-553-5151 to find out how.



*This studio fits in your rack—with 31-note polyphony, stereo sampling, 50 effects, 8 outputs, SCSI, and more.*

- Re-sample through the effects processor for stunning multi-effects
- Use optional digital I/O to record your final mix to DAT
- HAVE FUN!

*P.S. Already own an ASR-10? The Version 2 upgrade is free!*

**ensoniq®**

THE TECHNOLOGY THAT PERFORMS

Please send me more information on the ☐ ENSONIQ ASR-10 Also, please send me information on ☐ ENSONIQ Synthesizer Workstations ☐ DP/4 Parallel Effects Processor

Name \_\_\_\_\_ Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Phone ( \_\_\_\_\_ ) \_\_\_\_\_

Mail to: ENSONIQ, Department K-44, 155 Great Valley Parkway, P.O. Box 3035, Malvern, PA 19355-0735



TS-10 Performance/Composition Synthesizer



SQ-2 32 Voice Personal Music Studio



KS-32 Weighted Action MIDI Studio



DP/4 Parallel Effects Processor



SQ-R PLUS 32 Voice Synthesizer Module



# ITZALLHALFOFF

## YAMAHA

### Yamaha SY85

Professional PCM Samples

**5-pack: \$53.95** Retail: \$89.95

SY8501 PCM Sampler

5-pack includes Acoustic Guitars, Dyno Rhodes, Full Violin Section, French Horn Ensemble and Violas Attack. Titles also sold separately.

**Each disk: \$9.95**

Retail: \$19.95

### Yamaha SY85

Professional Voices

**DISK: \$19.95** Retail: \$39.95

SY801 Super R&B

SY802 Country/Acoustic Folk

SY803 Hybrid Textures

SY804 Radical Film Textures

### Yamaha SY99

Professional PCM Samples

**5-pack: \$44.95** Retail: \$89.95

SY9501 Guitar & Bass I

SY9502 Guitar & Bass II

SY9503 Orchestral I

SY9504 Orchestral II

SY9505 Synths I

SY9506 Synths II

SY9507 Ethnic

SY9508 Drums

SY9509 Claviers

SY9510 Brass & Reeds

SY9511 Grand Piano/Dyno Rhodes

### Yamaha SY99

Professional voice banks

**DISK: \$19.95** Retail: \$39.95

SY901 Radical Film Textures

SY902 Vector Emulations

SY903 Super R&B

SY904 Rock, Pop & Roll

SY905 Killer B3's

SY901 Library Pack only \$74.95

### Yamaha SY99

Optimized SY77 voices

(320 each)

**DISK: \$74.95** Retail: \$149.95

SY971 Pop/Rock/R&B

SY972 Atmospheric/Film

### Yamaha SY77/TG77

**DISK: \$19.95** Retail: \$39.95

**ROM: \$59.95** Retail: \$119.95

SY/TG701 Alchemy Collection

SY/TG702 Platinum Collection

SY/TG703 Manhattan Collection

SY/TG704 California Collection

SY/TG705 Rock & Roll Classics

SY/TG706 Atmospheric Textures

SY/TG707 Pop Music Collection

SY/TG709 Urban Dance/Pop

SY/TG711 Progressive Analog

SY/TG712 Dual Element Drums/Percussion

SY/TG713 Dreamtime Collection

SY/TG714 Killer B3's

### Yamaha SY77/TG77

(continued from last column)

SY715 Radical Soundtrack

SY716 Industrial Cybertech

SY717 Symphonic Collection

### Yamaha SY22/TG33

128-voice dual banks

**DISK: \$39.95**

Retail: \$79.95

**ROM: \$74.95**

Retail: \$149.95

SY201 SY77 Impressions

SY202 Proteus Impressions

SY203 Vector Atmospheres

SY204 Ultimate Top 40

TG301 R&B/Industrial Vector

TG302 New Age/Orchestral

### Yamaha SY55/TG55

128-voice dual banks

**DISK: \$39.95** Retail: \$79.95

**ROM: \$74.95** Retail: \$149.95

TG502 Modern Artist Soundscapes

TG504 Modern Analog Soundscapes

### Yamaha V50

**DISK: \$19.95** Retail: \$39.95

V501 New York Collection

V502 New Age Collection

V503 Los Angeles Collection

V504 Multi-Timbral Collection

V505 Down Under Collection

V506 Urban Pop/Industrial

### Yamaha TX802

**DISK: \$19.95**

Retail: \$39.95

80201 Soundtrack

80202 MIDI Guitar Voices

80203 Power Synths

80204 MIDI Wind Voices II

80205 L/A Voices

### Yamaha DX7IIE!

Grey Matter equipped

**DISK: \$45.95** Retail: \$89.95

7E02 Super E!

**PKG: \$55.95** Retail: \$109.95

7E00L Super E! Survival Kit

### Yamaha DX7/TX7

**DISK: \$24.95** Retail: \$49.95

**CART: \$39.95** Retail: \$79.95

0703 Soundtrack & L/A Voices II

0704 Super L/A Voices

### Yamaha DX7II Series

**DISK: \$15.95** Retail: \$29.95

701 Soundtrack

702 Top Forty

703 Classic Synths

704 L/A Voices II

705 Pianos and Guitars

706 Soundtrack II

707 Keyboard Collection

708 Super L/A Voices

709 Symphonic Collection

710 Classic FM Voices

711 New Age Collection

712 Super R&B

### Yamaha DX11

**DISK: \$9.95** Retail: \$19.95

1101 Designer Series

1104 Digital Synths

### Yamaha TX81Z

**DISK: \$9.95** Retail: \$19.95

81201 Designer Series

81202 R&B Dance

81203 Guitars, Guitars!

81204 Digital Synths

81205 Custom Wind Voices I

81206 L/A Collection\*\*

81207 Classic FM Collection\*\*

81208 TV/Film Collection\*\*

81209 Soundtrack Collection\*\*

\*03, 05: \$13.95, retail \$24.95

\*\*06-09: \$23.95, retail \$39.95

### Yamaha TX16W

**DISK: \$9.95** Retail: \$19.95

**5-pack: \$31.45** Retail: \$69.95

Call for available titles!

### CD-ROMS/SAMPLE CDS

Sound Source is now an official Greysounds and Audioquest dealer!

### Greysounds

**SALE: \$219.95** Retail: \$299.95

Choice CD-ROMs for SampleCell, \$1000/1100, Emox II, K2000 and Peavy SP

### AudioQuest

**SALE: \$74.95** Retail: \$99.95

Classic Synths & Beatboxes Breaks, Grooves & Rhythms, FX & Bizarre Samples  
Sample Wave Sounds & Textures

## KORG

### Korg 03R/W

**DISK: \$24.95** Retail: \$49.95

**ROM: \$49.95** Retail: \$99.95

3R01 Symphonic Collection

3R02 Modern Synthesis

3R03 Urban Dance/Pop

3R04 Radical Film Textures

3R05 New Age Textures

3R06 Acoustic Set

3R07 Stage & Studio

3R08 Country/Folk/Acoustic

### Korg 01/W

**DISK: \$24.95** Retail: \$49.95

**ROM: \$49.95** Retail: \$99.95

0W01 Symphonic Collection

0W02 Non-Linear Explorations

0W03 Urban Dance/Pop

0W04 Radical Film Textures

0W05 New Age Textures

0W06 Acoustic Set

0W07 Modern Synthesis

0W08 Industrial Cybertech

0W09 Stage & Studio

0W10 Country/Folk/Acoustic

### Korg Wavestation

**DISK: \$24.95** Retail: \$49.95

**ROM: \$47.95** Retail: \$94.95

WS01 New Age Collection I

WS03 Vector Atmospheres I

WS04 SY77 Impressions

WS05 "Granular" Emulations

WS06 Hybrid Synthesis I

WS07 Vector Atmospheres II

WS08 New Age Collection II

### Wavestation A/D

**DISK: \$24.95** Retail: \$49.95

**ROM: \$47.95** Retail: \$94.95

AD01 Super Vocoder

AD02 Animated Orchestra

AD03 Pop/Rock

### Korg T Series

Dual banks

**DISK: \$34.95**

Retail: \$69.95

T101 Soundtrack

T102 New Age

T104 Classical Organ Collection

T105 Pop/Funk/House/Rap/Rock

### Korg T Series

PCM disks

**5-pack: \$39.95**

Retail: \$79.95

T501 The Elements

T502 Sound Effects

T503 Musical Effects

T504 Fusion/Jazz/Ethnic

T505 Rock/Pop Drums

T506 Brass

T507 Classic Keyboards

T508 Orchestral

T509 Plucked

T510 VS

Note: (06-10, \$71.95 (retail \$89.95))

### Korg S3

**DISK: \$17.95** Retail: \$34.95

**ROM: \$44.95** Retail: \$89.95

S301 Pop/Rock

### Korg M1/M1R

**DISK: \$17.95** Retail: \$34.95

**ROM: \$44.95** Retail: \$89.95

M101 New World Collection

M102 Film Textures

M103 Synthesizer Collection

M104 New Age Collection

M106 MASTERAM 100 Collection

M107 Classical Organs I

M108 Acoustic/Folk

M109 Pop/Rock Collection II

### Korg M1Rex

**DISK: \$17.95** Retail: \$34.95

**ROM: \$44.95** Retail: \$89.95

REX01 Super R&B

REX02 Classical Organs II

REX03 Sonic Landscapes /FX

### Korg M3R

**DISK: \$17.95** Retail: \$34.95

**ROM: \$44.95** Retail: \$89.95

M301 Pop/Rock Collection

M302 Multi-Timbral, Vol. I

M303 Radical Film Textures

### Korg A1

**DISK: \$19.95** Retail: \$39.95

**ROM: \$44.95** Retail: \$89.95

A101 L.A. Super Session

### Korg A3/A2

Guitar tones

**DISK: \$19.95** Retail: \$39.95

**ROM: \$44.95** Retail: \$89.95

A301 Guitar Heroes Studio Collection

**Sam Ash**

East Coast customers:  
visit any Sam Ash store  
for a full line of  
Sound Source soundware  
at great prices!

**ALESIS**

### HR-16/SR-16

**DISK: \$14.95** Retail: \$29.95

HR/SR01 Rap, R&B & Industrial



**IT MAKES NO SENSE TO MESS WITH FACTORY PRESETS.  
NOT WHEN THERE'S A 50% DISCOUNT ON OUR  
ACCLAIMED SOUNDS AND SAMPLES.**

## ROLAND

### Roland JV-80/880

**DISK: \$24.95** Retail: \$49.95  
**ROM: \$49.95** Retail: \$99.95

JV801 Country/Folk/Acoustic  
JV802 Animated Textures  
JV803 R&B Synths  
JV804 Hybrid Textures  
JV805 Sequencer Companion

### Roland JD-800

**DISK: \$24.95** Retail: \$49.95  
**ROM: \$49.95** Retail: \$99.95

JD801 Urban Pop Collection  
JD802 New Age Collection  
JD803 Film Textures  
JD805 Progressive Artist Collection  
JD806 Jupiter Textures  
JD807 Hybrid Textures

### Roland D-50/D-550

**DISK: \$17.95** Retail: \$34.95  
**ROM: \$47.95** Retail: \$94.95

D501 TV/Film  
D502 Power Synths  
D503 Dance Mix  
D506 Producer Series  
D507 Artist Series  
D508 Super R&B  
D509 Atmospheric Textures & FX  
D510 Acoustic/Folk

## E-MU

### E-mu Proteus MPS

**DISK: \$19.95** Retail: \$39.95  
**RAM: \$49.95** Retail: \$99.95

MP501 Acoustic/Synth Collection  
MP502 Classic Synth/FM

### E-mu Proteus/1/XR

**DISK: \$14.95**  
Retail: \$29.95

PE01 IBM/CI Editor/Librarian/Sound pkg.  
only \$59.95 (reg. \$89.95)  
P101 Fantasy Textures  
P102 K1000 Impressions  
P103 Top 40  
P104 Acoustic Collection  
P105 Classic Synth  
P106 FM Textures  
P011 Library Pak 1 (101-103) \$54.95  
P021 Library Pak 2 (104-106) \$54.95

### E-mu EMAX Samples 5-pack: \$34.99

Retail: \$69.95  
EMX501 Multi-Timbral Collection  
EMX502 Drum/Bass Library

### Roland D-70

**DISK: \$19.95** Retail: \$39.95  
**ROM: \$49.95** Retail: \$99.95

D701 Proteus XR Impressions  
D702 Atmospheric Textures  
D703 Synthesizer Collection  
D704 Artist Series  
D705 Industrial Cybertech

### Roland D-110/20/10/5

**Performance series**  
**DISK: \$14.95** Retail: \$29.95  
**ROM: \$44.95** Retail: \$89.95

D101 Dance Mix  
D102 Digital Synth  
D103 New Age  
D104 MultiTimbral Artist  
D-20/10/5 banks start with prefix "D2."  
ROMs not available for D-110

### Roland U-20/U-220

**DISK: \$14.95** Retail: \$29.95  
**ROM: \$44.95** Retail: \$89.95

U201 Artist Series  
U202 Stage & Studio

### Roland MT-32

**DISK: \$9.95** Retail: \$19.95  
MT01 Multimedia Collection  
MT02 Top 40/Dance

### SoundCanvas

**SC-55 SoundPalette Series**  
**DISK: \$19.95** Retail: \$39.95

SC01 Hybrid/Alternative  
SC02 Film/New Age  
SC03 Stage & Studio  
SoundCanvas video only \$29.95!

## ENSONIQ

### Ensoniq SQ-1/SQ-R

**DISK: \$24.95** Retail: \$49.95  
**RAM: \$49.95** Retail: \$99.95

SQ01 MASTERAM Collection I  
SQ02 Film Textures  
SQ03 R&B/Top 40

### Ensoniq EPS16 Plus PCM Sample 5-packs

**5-pack: \$39.95** Retail: \$79.95

EPS516 Atmospheric Collection  
EPS517 Waveform Construction Set I  
EPS518 Waveform Construction Set II  
EPS519 Pop/Rock Drums  
EPS520 Horns, Natural/Synth  
EPS521 Acoustic/Electric Collection  
EPS522 Famous Synths I (Analog)  
EPS523 Famous Synths II (Digital)  
EPS524 Famous Synths III (Hybrid)

## BURN

**YOUR USER'S MANUAL!**

Sound Source offers a complete selection of Katamar Publishing's acclaimed "How-To" books. These helpful alternative manuals are the perfect gift for programmers and players of all levels.

Ask about Book/Bank specials!

**Korg** 01/W, WS, T-Series, M1, M3R

**Roland** JV-80, JD-800, D-70, U-20, U-220, D-10/20/110

**Yamaha** SY99, SY77, SY55, SY22, DX7, TX802, DX7II/FD, TX81Z

**Kawai** K4/K4r, K1

**Ensoniq** VFX, EPS/16+

**Call for titles!**

### Ensoniq VFX<sup>SD</sup>/SD-1

**DISK: \$34.95** Retail: \$69.95

V101 Samplers & Synthesizers  
V102 Super Stage & Studio  
V102 is compatible only with VFXSD/SD-1

### Ensoniq EPS 1x 2x 4x

**5-pack: \$31.95** Retail: \$64.95

15 different 5-packs include:  
Synthesizers, Orchestral, Symphonic, Rhythm Section, M1 Classics (I-VII)  
U-20 Collection (I-III), D77 Classics (I-III)

## KAWAI

### Kawai K4 Series

**DISK: \$19.95** Retail: \$39.95  
**RAM: \$49.95** Retail: \$99.95

K403 MASTERAM Collection 1  
K404 MASTERAM Collection 2  
K405 Stage & Studio Collection  
K406 Pop/R&B  
K407 Radical Film Textures

### Kawai K1 Series

**DISK: \$17.95** Retail: \$34.95  
**RAM: \$44.95** Retail: \$89.95

K101 Platinum Collection  
K102 Fantasy Collection  
K104 MASTERAM Collection 1  
K105 MASTERAM Collection 2  
K106 Orchestral Collection

### Kawai XD-5

**DISK: \$24.95** Retail: \$49.95  
**RAM: \$89.95** Retail: \$109.95

XD501 R&B/Pop  
XD502 Rock/FX

## KURZWEIL

### Kurzweil K2000

**DISK: \$19.95** Retail: \$39.95

K201 Hybrid Textures  
K202 Modern Synthesis  
K203 Stage & Studio  
K204 Radical Film Textures

## CASIO

### Casio VZ/PG380

**DISK: \$24.45** Retail: \$49.95  
VZ01 MASTERAM Collection I

## PEAVEY

### Peavey DPM 3/V3

**DISK: \$19.95** Retail: \$39.95  
PV02 Emulative Textures

## BLANK RAMS

Yamaha RAM 6 (SY/TC) ..... \$69.95  
Korg RAM (all but 01, 03R/W) ..... \$74.95  
Korg SRC512 (01/W, 03R/W) ..... \$114.95  
Roland 32K RAM (JV, JD, D) ..... \$54.95  
E-mu RAM (Proteus MPS) ..... \$74.95  
Ensoniq 16K RAM (SQ) ..... \$59.95  
Kawai 8K RAM (K1 series) ..... \$44.95  
Kawai 16K RAM (K4, XD-5) ..... \$59.95

## Order direct from Sound Source!

All prices good throughout North America only.  
Dealer inquiries invited.

**(800) 877-4778**

Call Mon-Fri, 8 to 5:30 Pacific time.



2985 E. Hillcrest Dr., Suite A, Westlake Village, CA 91362

(805) 494-9996 • Fax (805) 495-0016, 496-4917 • BBS (805) 373-8589

Standard shipping rates: \$4 for continental U.S., \$8 for Canada & Mexico. Federal Express is available (call). Color catalog & price list, send \$3. Visa/MC/AMX, checks (2 week hold) & money orders in U.S. funds accepted. Allow 2-4 weeks for delivery. Now that the CyberPunk Command has taken a more direct approach, the CPC Decree of Institutionalized Competitive Standards has been amended. Thus, V-Sector mutants are toast.

**SOUND<sup>~</sup>  
SOURCE  
INTERACTIVE**







“They’re  
m a k i n g  
SAMPLERS  
Wrong”

... Are Today's Samplers Really That BAD?

Six **TECHNO** Sampleheads  
Dump the Digital Garbage

by Greg Rule

👤 Hi-tech, dead? Not by a long shot. And certainly not in the world of techno — a genre bursting with synthetic textures, throbbing electronic percussion, and layers of meticulously crafted samples. Like the hip-hop artists spotlighted in Part I of our Sampling Nation report (see page 31), techno artists are masters of machines, and samplers

Illustration: Marcos Sorensen



# S a m p l i n g NATION T E C H N O

are vital tools of their trade.

What exactly are these artists sampling? How are they manipulating their data? What's their take on the current crop of machinery? And do they think it's acceptable to sample passages from other artists? That's precisely what *Keyboard* set out to learn from seven of techno's finest, the centerpiece being a four-man roundtable held recently in San Francisco.

The responses we received were a far cry from those given by the hip-hop interviewees. Generally speaking, hip-hoppers aren't concerned with sample resolution, editing features, and the like. In fact, three of our four artists reported using a sole "dinosaur" sampler to create their hit tunes.

Techno artists, in marked contrast, are generally dissatisfied with the state of technology. Richard James (a.k.a., Aphex Twin/Polygon

Window), summarized samplers as "shit," saying, "I could talk for ages about all the things they should have on them that they don't." As did Kris Weston of The Orb, who told us manufacturers "are making samplers wrong," and they should consult him "to find out how to design them."

When it comes to sampling material from other artists, or being sampled, the techno contingent took a surprisingly relaxed stance. Richard James, for one, said he didn't care if someone copied his whole track and put it out under a different name, a feeling Mark Gage of Vapourspace related to. He reported that someone took almost ten minutes of an 18-minute track of his. "As far as I'm concerned," he told us, "once someone puts something out, they might as well get used to the fact that people are going to pilfer."

Here then, straight from the mouths of the artists, are candid comments on the state of samplers and sampling.



**KRIS WESTON (THE ORB).** Walking into an Orb show is like walking into a bizarre psychedelic dreamland. "The best gig in the

world," raves the British publication *NME*. Whatever the venue, Orbsters Alex Patterson and Kris "Thrash" Weston put on a show that even the mighty Pink Floyd would applaud. The band's discography includes: *Little Fluffy Clouds*, *Adventures Beyond the Ultraworld*, and *U.F.Orb* (on Big Life/Mercury), and *Orb Live 93* (Island). Not one to candy-coat his views, Kris Weston gives manufacturers of samplers a piece of his mind.

*You seem pretty dissatisfied with samplers. Why?*

There's not enough power to manipulate sounds. Really what you need is a sampler with a desk inside of it, with full effects and everything, so you could manipulate sounds into something completely different. You can kind of do that with the Roland S-750's filters, but it's still very limited. I think you should have everything in front of you — all the parameters should be immediately available, as in old analog synthesizers and manual sequencers. It's such a human thing to do. It's not human to go through pages.

*Is the S-750 your sampler of choice?*

One of them, but I also use Sequential's Prophet 2000 and Studio 440, and an Akai S1100.

*When you edit, do you do so off-site with computer editing software?*

No, we ain't got the gear to do all that.

*So you do it all within the sampler.*

Yeah. I mean, you still can't do all that much with a computer.

*When you're building songs, what role does the sampler typically play in the process?*

Well, of course we do things different each time. It all depends on the idea of the song.

*Do you use loops for your rhythmic beds?*

No, we don't use loops. All the samples we use are disguised; they sound like something completely different, unless you want to use them in the context of having as an obvious sample, which is sometimes nice.

*Do you have anything against using loops?*

No, not really. There has been quite a bit of that, but they can be good in some ways. Samples that have been used to make another track are totally valid. I mean, why not? Why isn't it valid? But personally, we've been staying away from that.

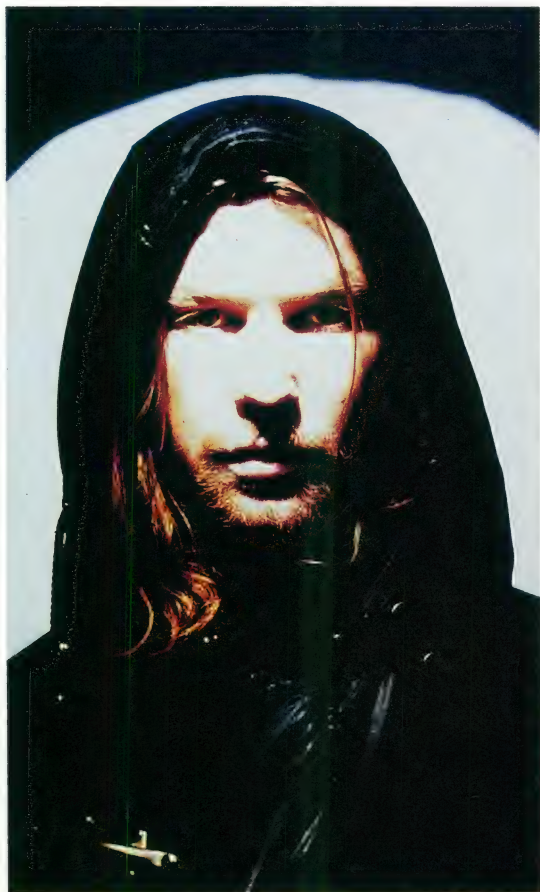
*So you sample mostly from scratch?*

Yeah, we do everything from scratch. All the sounds, everything.

*Give us examples of sounds you've captured that have appeared on your records.*

We sampled an elephant blowing out water, and used that as noise over the top.

*Did you go to the zoo to get that sound?*



**I designed  
and built my  
own sampler  
for a college  
project once.  
When it  
worked, I  
reckon it pissed  
on just about  
any manufac-  
tured sampler.  
Richard James,  
Aphex Twin**



**Really what you need is  
a sampler with a desk  
inside of it, with full effects  
and everything . . . all the  
parameters should be  
immediately available. It's not  
human to go through pages.**

**Kris Weston, *The Orb***



No, that was off one of Alex's videos that he took on holiday. We also took a sample of a horse's sniff and used that as a proper hi-hat. It sounded pretty good.

*Have you done any similarly strange things for other tracks?*

We do that a lot — fucking around and experimenting with big tubes and shit. More recently, we heard some drums in the park at about four o'clock in the morning. We put mikes on the other side of the park, and we were in the process of sampling them when the police turned up.

*What's your message to manufacturers of samplers?*

Today's keyboards, I don't know what the fuck they're doing, but they've lost it.

*A lot of people are going back to the old stuff.*

I didn't think they were ever that good in the first place.

**RICHARD JAMES (Aphex Twin/Polygon Window).** Under the monikers Aphex Twin and Polygon Window, Richard James has recorded *Didgeridoo* (Outer Rhythm), *Joyrex J4 & J5* (Rephlex), *Ambient Works 82-92* (R&S), *Polygon Window* (Warp), *On* (Sire), and *Selected Ambient Works Volume 2* (Sire). The mad scientist of techno, he designs and builds his own oddball electronic instruments from scratch. Like Weston, he has a nit or two to pick with manufacturers of samplers.

**MARK GAGE (Vapourspace).** Mark Gage's debut EP *Gravitational Arch of 10* (Probe/Plus), is colorfully described in his

press packet as "a gorgeous, spooky, downpour of tranquility . . . an overload of textures and hard-hitting grooves." At press time, his full-length FFRR follow-up, *Themes from Vapor Space*, was on its way to record stores. Other releases include *Cusp* (Probe/Plus 8) and *Magnetic Gravity Arch Suite* (FFRR). Below, Gage tells us how a sampler "accident" led to a hit song, and how he's already fallen prey to sample thievery.

**PAUL & PHIL HARTNOLL (Orbital).** With four releases to their credit, *Orbital 1*, *Halcyon EP*, *Orbital 2*, and *Diversions* (all on FFRR) the brothers Hartnoll have been wowing audiences with their "mind-bending, body-invading journey into keyboard wiz-

ardry," according to *Billboard*. Here the Hartnolls tell us, in colorful terms, how a couple of their tracks evolved from samples of "old, weird, crap records."

*How did you get into sampling?*

**James:** I started out making tape samples until I eventually got one of those kits from Synclaire — one of those build-it-yourself things for about 50 pounds. That's what got me hooked on sampling.

*How do you marry samplers with your homemade instruments?*

**James:** I use samplers mainly because the gear that I build doesn't respond to MIDI. I have to sample the sounds and use them that



**I think you're  
not really  
famous until  
you've been  
ripped off.  
Mark Gage,  
Vapourspace**



# CD3000

## The CD Sampler

**The only  
sampler with  
a built-in  
CD-ROM  
drive!**



**Five  
CD-ROM  
libraries  
included  
FREE!**

**I**t's a fact that most sampler owners don't record and edit their own original samples. And who can blame them? Today there is an ever growing selection of high quality sounds to choose from, created by dedicated developers using the best recording equipment and techniques. Increasingly, you'll find these collections available on two preferred media: **CD-ROM** and audio **CD**. CD-ROM offers complete programmed banks for your sampler, while audio CDs provide the raw samples and leave the program editing up to the user. Pick whichever works for you!

And if you're going to primarily use CD-based libraries, doesn't it make sense to have the one sampler that allows you to take full advantage of the technology? That's the Akai **CD3000**.

The CD3000 is the only sampler to include a built-in CD drive, the convenience of which simply can't be matched by external drives. And not only can you access CD-ROM, you can actually **record digitally** into memory directly from audio CDs!\* Not having to go through a series of A/D and D/A converters means you retain **maximum CD quality audio**. Which is the whole idea, right?

Naturally, the CD3000 is also equipped with a high-density (2HD) 3.5" floppy drive and a SCSI interface for hard disk connections.

The CD3000 includes a variety of disk functions designed to maximize your productivity. Need to locate all samples with similar names? The CD3000's **Find** command allows you to search any connected SCSI drive for a specified text string. No more useless scrolling around disk directories for you! And another great time-saving feature is the **Tag** function, which allows you to mark any programs or samples on hard disks for automatic loading. For example, you could quickly load a group of

bass samples from different partitions for a producer's auditioning, without having to manually find and load each one individually. Tags may be named as you wish, for easy recall. And when using discs created for the CD3000, **SetUp** files can be used to automatically load programs and samples (even from different partitions) with a remote MIDI command, perfect for live performance!

In many other ways, you'll find the CD3000 far above competitors: 32-voice polyphony, 8 meg RAM (expandable to 16 meg), dynamic resonant filters, 18-bit D/A converters, time compression/expansion, sample fade up/down, Assignable Program Modulation, stereo digital effects (delay, chorus/flange, stereo pitch shifting), 10 outputs (stereo L/R + 8 assignable), and much more than space allows for here. In short, the best from the worldwide sampling leader.

And finally, each CD3000 is shipped with not one, but **five CD-ROMs** created by Akai and leading sound developers East•West Communications, In-Vision Interactive, and The Hollywood Edge. Drums, percussion, rhythm loops, synths, acoustic instruments, sound effects, it's all here. An incredible value, included **FREE!** Of course, the CD3000 can use any CD-ROMs created for the S1000/1100/3000 series, and currently there are over 40 different ones to choose from, with more appearing all the time!

Visit your Akai dealer today and check out the CD3000, the **only** sampler literally built around CD technology!



*Five CD-ROM  
discs included  
with the CD3000!*

CD3000

**AKAI**  
professional

P.O. Box 2344  
Ft. Worth, TX 76102  
(817) 336-5114  
Fax 870-1271

© 1994 Akai/IMC

Specifications subject to change without notice

All trademarks are the property of their respective holders

\* Reproduction or other use of copyrighted material such as a CD and the audio contained thereof generally requires permission from the copyright owner.



# S a m p l i n g NATION T E C H N O

way sometimes to get a tighter feel. If I trigger all the stuff I've made with voltages, it has a looser kind of feel. So I use the sampler for tightness, really.

*Describe the ideal sampler.*

**James:** It would be a sampling workstation of sorts, but it would be portable and it would run off batteries. Nothing like that is out there; the closest things might be the [Akai] MPC-60 and [Sequential] Studio 440. But today's samplers, they're just fuckin' shit, really. I designed and built my own sampler for a college project once. When it worked, I reckon it pissed on just about any manufactured sampler. I could talk for ages about all the things they should have on them that they don't.

*For example?*

**James:** Too many samplers today are made like DAT machines. Manufacturers don't put enough features on them, probably 'cause they think it'll scare off the users; they think there are probably too many buttons on the thing already.

*What features do you think should be standard?*

**James:** Totally variable sampling rates. You should be able to sample from, say, zero to 100K. Instead, they give you four or five rates. You should be able to do loads of digital effects.

**Gage:** They should be more like synthesizers. It would be great to have lots of knobs for things like resonance, filters, and en-

velopes — right on the unit itself, instead of jamming it all into one little rack-mount thing, or whatever.

**Phil Hartnoll:** It's made for bloody convenience, isn't it?

**Paul Hartnoll:** It's such crap. Who gives a fuck if you're paying 1,500 pounds for a piece of equipment? You know, you want it because it's a good piece of equipment. You don't want it because it fits into a one-rack unit.

**Phil Hartnoll:** Calm down.

**Paul Hartnoll:** No, I won't calm down! [Laughs.]

*How important are samplers in your setup?*

**Gage:** Lately I've been decreasing the role of the sampler a little bit, trying to use more synth technology. I think a lot of people have gone the cheesy route with samplers, using break beats, girl singers, and all that. So I've tried to stray from that idea.

*Let's segue into applications. Using one of your songs as an example, tell us how you put sampling to use in the studio.*

**Gage:** Primarily I trigger my sampler with the [Roland TR-] 909, using the external instrument mode, which I probably shouldn't say too much about; a lot of people probably don't know about that. For example, the song "The Gravitational Arch of 10" was an entire mistake. I had a disk loaded in the sampler for one of my other tracks, and I triggered the wrong pattern on the drum machine. Immediately I turned on the DAT and started screwing around with the pitch-bend wheel on the [Roland] SH-101. Within about an hour and a half I had the track finished down to DAT. Things don't always happen that way, though. I mean, it usually starts with a little riff or something, whether it's a sampled riff or a synth thing. It's not like it's divine intervention. Some things can



**Samplers tend to have their own unique sort of sound. One might presume that a sampler is just a sampler, but I don't find that to be true.**

**Phil Hartnoll, Orbital**

take me two weeks, other things can take me two hours.

*Techno folks have been criticized at times for fabricating music from pre-existing samples*

**I think with samplers, the possibilities are so far-reaching that most people are really only scratching the surface when they use them.**

**Ian Cooper, Ultramarine**



**Cooper**

**Hammond**



# System 200™

MODULAR PRO AUDIO



## The Fusion of Space, Sight and Sound

Ten years ago, the Electro-Voice S-200 speaker system set the standard for portable, lightweight speaker systems. And the S-200 has been unrivaled in performance...*until now.*

Introducing **System 200™ Modular Pro Audio**: the best lightweight, compact sound system that modern technology can produce.

- The **Sx200**—a 39-lb, full-range system that puts out more than 126 dB continuous—more than double that of any comparable speaker!
- The **Sb120a**—a 34-lb bass module that contains a 400-watt amplifier and a 12-inch woofer that thinks it's a 15!
- The **Xp200**—combines a crossover with a little electronic magic for results you can hear and feel!

Together, these elements define a new standard of performance that you can carry in one hand.

So get to your EV dealer and experience System 200™ Modular Pro Audio. Demo it—and get a free T-shirt. Buy it—and add the fusion of space, sight and sound to your performance.





# S a m p l i n g NATION T E C H N O

or relying too much on robotic four-on-the-floor drum beats.

**Gage:** It all depends on the person who's operating the gear. I mean, anybody can lay down something, but the question is whether or not it's genuine or different.

**Paul H.:** I'd like to see those people who complain about that do it themselves.

**Gage:** Absolutely.

*What kinds of things are you sampling . . . any real-world sounds, for example?*

**Paul H.:** Not as much as we want to. We keep meaning to.

**Phil H.:** We get lots of things from old second-hand records.

**Paul H.:** Yeah, those really old, weird, crap ones. Sometimes we go through them without even listening really, sampling ten seconds here and there, and every once in a while we'll cut into something and, "Right! That's the bit I want."

*More specifically?*

**Paul H.:** It's hard to single anything out 'cause it's so, sort of random all the time.

**Gage:** Tell them about "Chime."

**Paul H.:** "Chime," okay, that was a case of random sampling with an easy-listening record — just sort of starting with a bit about two bars long, and then honing it down and down and down until we ended up with a single-shot sound. Then we started making up a tune from that.

*Easy-listening, as in Perry Como?*

**Phil H.:** Yeah, exactly. On another track we sampled, Paul brought back a digeridu from Australia. He was playing it, a long bit, and we sampled and looped it.

**Paul H.:** I think to make it more interesting we took two samples of it, panned one left, one right, and played one five semitones lower than it should have been.

*Didn't that create a rhythmic mismatch?*

**Phil H.:** It was mostly a drone.

**Paul H.:** But it did have a rhythm to it. What it ended up being was sort of a triplet figure under the original, and we also put a four-to-the-floor thing against it, which created an interesting rhythm. What else did we sample there? Oh yeah, that was the one case where we went around with a Walkman,

recording sounds. We actually got the sound of an Australian pedestrian crossing, which was a piece of percussion just by itself.

**Phil H.:** Another track we sampled this vocal a cappella bit and then reversed the thing. It made this lovely melody just by reversing it.

*Do you edit within the sampler?*

**Paul H.:** Yeah, we do it all with the sampler.

*And you find that adequate enough?*

**Paul H.:** Yeah. I mean, the Emax II has a crap little screen on it, but I found that after a while it doesn't really matter anyway, 'cause you just use your ears.

**Phil H.:** With samplers, they do tend to have their own unique sort of sound. You know, they all sound a bit different, like all different makes of instruments do. One might presume that a sampler is just a sampler, but I don't find that to be true. The Emax, for example, is quite warm and friendly.

*Richard, could you give us some examples of the types of things you've sampled of late?*

**James:** Well, I'll have to be a prick about that.

*Excuse me?*

**James:** I don't like to talk about the way

## YOUR ONE-STOP MUSIC TECHNOLOGY SOURCE

For over 12 years, Sweetwater Sound has been dedicated to providing musicians with the very latest technological breakthroughs at affordable prices. From synths and samplers to multitrack recorders and mixing consoles, Sweetwater has everything you need to make your dream MIDI system or home recording studio a reality. Isn't it about time you found out why musicians and engineers around the world have come to depend on Sweetwater for all their equipment needs?

**KORG** **E-MU**  
**Roland**

**digidesign**  
**KURZWEIL**  
*Music Systems*

**TASCAM**



Whether you're a first-time buyer or a seasoned pro looking to upgrade your gear, Sweetwater sells products from over 80 of the best names in the business and our prices are so low, you won't have to take a second job just to start making music! With a sales staff that's the most knowledgeable in the industry and a factory authorized service center on premises, you have to ask yourself: why go anywhere else?



Opcode • Mark of the Unicorn • AKAI • Sony  
Digidesign • Ramsa • Passport • TOA • AKG  
Panasonic • Digitech • InVision • Nakamichi • JBL  
Mackie • BBE • Lexicon • Carver • Coda • Rane  
Fostex Recording • JLCopier • Dynatek • Stewart  
Soundcraft • TAC/Amek • KAT • Crown • Anatek  
Furman • Oberheim • Tannoy • Juice Goose  
Tech 21 • 3M, Ampex & Denon Tape  
Macintosh, IBM and Atari MIDI software & interfaces  
**OTHER MAJOR BRANDS TOO! HUGE IN-STORE INVENTORY!**

**Our exclusive guarantee:**  
**"If you don't like it, we'll take it back — with no hassles!"**

NO SALES TAX (except IN)  
VISA • MasterCard • Discover  
AMEX • COD • Trades  
**Sweetwater**  
**SOUND INC.®**

CONFUSED? WHAT ARE YOU WAITING FOR? CALL US FOR FRIENDLY, FREE ADVICE AND GREAT PRICES!

5335 BASS ROAD • FT. WAYNE, IN 46808 **(219) 432-8176** FAX (219) 432-1758



# Sampling NATION TECHNO

I do tracks.

**Gage:** Come on, tell us about "Tampax."

**James:** All right, but that's just a really boring example of sampling. I nicked a bit of a Tampax advertisement, and used it in a track. But I don't want to say anything about the way I use it.

*Why not?*

**James:** In this business, it's kind of a geeky kind of music world where everyone thinks their success depends upon their secrets of the trade. In actual fact, it probably doesn't depend on that at all, but I still get chills down my spine thinking about telling people about the way I do things, so I don't. [Ed Note: James wasn't kidding. When we tried to get an up-close look at his bizarre electronic instruments during soundcheck, we were promptly escorted off the stage.]

*Okay, let's approach the subject from another angle. Did you have to get permission from the Tampax company before using that*

*sample?*

**James:** No. The things I've sampled . . . I've probably only sampled about three or four things ever that haven't been my own material. The last 14 months, I haven't used anyone else's equipment, never mind anyone else's sounds. I just became totally obsessed with using my own sounds, and got to the point where I chucked out all my standard gear in my studio. Now I exclusively use my own gear, apart from things like computers and samplers. But everything that makes a sound, basically, is my own gear.

*What do you feel should happen in the courts concerning sampling rights?*

**James:** I don't care. I don't care if someone copies my whole track and puts it out under a different name.

*Really?*

**James:** Absolutely.

*Mark, what do you think?*

**Gage:** To a degree it doesn't bother me. It probably bothers my label more. I've already had someone take almost ten minutes of an 18-minute track of mine . . . it was mastered at 45, and they played it at 33 on this big collage CD called *Lotus One*. There was no information given on it, but whoever used it, though, did so interestingly; they layered all this other stuff over it. I think

you're not really famous until you've been ripped off.

*But then again, musicians need to pay their rent. If they're getting ripped off, why should they sit idly by when they could be getting paid for their work?*

**Gage:** It's up to you, and who you get involved with. There are so many scams in the music industry. I think people should be a little bit more worried about being ripped off by their actual labels than by other people.

**Phil H.:** Hear, hear!

**Gage:** I mean, appropriation has been around now for quite a while in audio and video. People should be getting used to it by now. Whenever I use something that belongs to someone else, I at least try to alter it to a certain degree.

**Phil H.:** I think it's great if somebody samples us, particularly if it's done in a creative way. Then again, if it's crap, then they deserve to get sued [laughs]. Nah, I didn't really mean that.

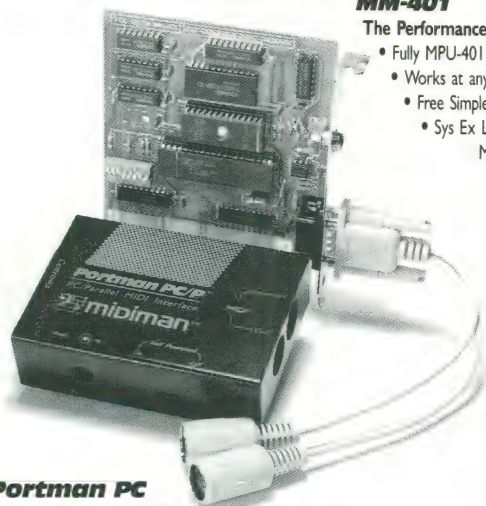
**ULTRAMARINE.** The music of Ian Cooper and Paul Hammond defies instant categorization. "We hear all the different labels applied to our music," chuckles Cooper, "but I think we're quite happy leaving it like that." Ambient, psychedellic, neo-jazz, techno-lite

## Worldwide Bestsellers. HIGH PERFORMANCE MIDI INTERFACES FOR THE PC AND MACINTOSH.

### MM-401

#### The Performance Standard.

- Fully MPU-401 Compatible
- Works at any buss speed
- Free Simple Sequencer;
- Sys Ex Librarian and MIDI Viewer.



### Portman PC

- External Interfaces for PC's
- Available in Parallel and Serial versions
- No Power Supply Required
- Perfect for Notebooks and Laptops
- 1 In / 1 Out
- Universal Windows and DOS Cakewalk drivers included!

### Macman

- 1 In / 3 Out MIDI Interface • Exclusive Serial Port Thru Switch - No need to unplug your printer! • LED Data Indicators • Serial Cable included
- No Power Supply Required.



### Mac Syncman

- 2 In / 6 Out Mac Interface and Sync Box • Chase Lock Your Multi-Track to any Mac Sequencer • SMPTE to MTC Sync - Supports all SMPTE Formats!
- Smart FSK Sync • Professional Quality SMPTE Regenerator
- Jam Sync - Insures Reliable Syncing • Includes: 2 Serial Thru Switches, 2 Serial Cables, Rack Mount Kit, and Syncman Remote Desk Accessory Software.

- All MIDIMAN MIDI Interfaces are available separately or as Complete MIDI Interface Kits which include our "Guide To Sequencers" book for the PC or MAC and 2 - six foot MIDI cables.
- All MIDIMAN Interfaces are FCC approved.

**midiman**™  
Guaranteed for life.

236 West Mountain Street, Suite 108, Pasadena, California 91103 • Tel.: (818) 449-8838 • Fax.: (818) 449-9480  
Toll Free: 1-800-969-6434 • BBS: (818) 449-2019 • CompuServe: MIDIBVEN Forum  
MIDIMAN products are available at fine music, pro audio and computer stores worldwide.



— whatever the name, one thing is certain, Cooper and Hammond know how to wrench a sampler. And they have plenty of records to prove it: *Ultramarine*, *Wyndham Lewis*, *Folk* (Les Disques Du Crepuscule, Belgium), *Every Man and Woman is a Star* (Rough Trade), *Nightfall in Sweetleaf* (Dali), and most recently *United Kingdoms* (Sire/Giant). Here, the duo give us a few examples of how sampling was used on their latest.

**Hammond:** Samplers are absolutely central to what we do. We do the initial writing on an Akai S1000, and build up our songs pretty much with tiny samples.

*What kinds of things do you sample?*

**Hammond:** Records, really. Any old stuff. What we're avoiding is taking huge chunks of tracks, because, obviously, it's dodgy legally. So we're not doing that. We prefer artistically to use very, very small snatches of sound, just a single note or a single beat or whatever.

**Cooper:** To give you an example of the kind of stuff we've been going for, we sampled a lot of early '70s, so-called progressive rock albums. We found some wonderfully recorded Hammond organ put through fuzz pedals. So we might sample chords or notes from that. Or we might create something from an

old scratchy, low-budget reggae album.

*So you've shied away from samples that have their own rhythms?*

**Hammond:** Rhythmically, we're a bit looser about how much we take. We do take larger chunks because you can cut them around, you're not tied to a particular tune or chord sequence, and they're less identifiable.

**Cooper:** There have been a couple of instances on this album where we might have taken a bar or two of something that had an initial rhythm, built up a song around it, and then taken that sample away. What you're left with is something very bizarre that follows no logical rules. There might be some auxiliary snares and hi-hats in unusual places just because there was a more coherent rhythm there originally which we then took away.

*Do you edit internally within the Akai?*

**Hammond:** No, we've mucked around with that, but to be honest, it's never been much use to us, really. We like to keep samples fairly crude anyway. We often enhance the vinyl noise on a particular percussive sound, for example, because it adds to the graininess and texture of the sample. So no, we never really got into diddling around to that extent with sample editors.

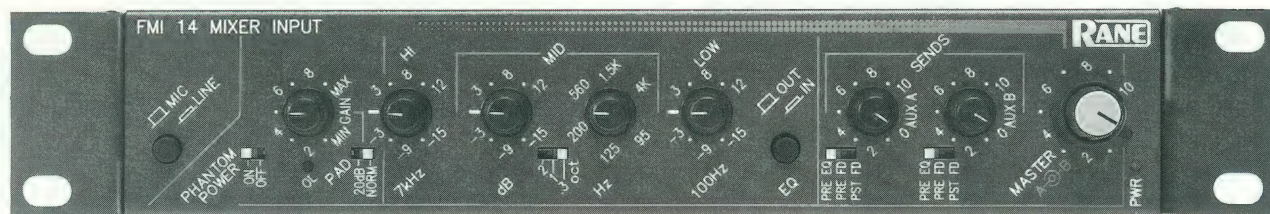
**Cooper:** We tend to go the long way around, anyway. If we feel something is going to work, but the timing is a bit out, then we'll chop it up into loads of separate samples. One drum sample might become Drum A, Drum B, C, D, E, and so on — a hugely complex thing.

*Are you happy with the state of samplers right now, or do you wish the technology were more developed?*

**Hammond:** I think by and large we are reasonably happy with it, because when you think about it, it is a pretty simple device, really. It affects me like a tape machine in a way; you're just taking small snatches of sound and playing them back in a way that you want. Essentially it's a quite simple instrument. We don't really manipulate samples that much. We kind of chop 'em up and deal with 'em inside the machine and on the sequencer, but we don't tend to over-EQ them and those kinds of things. With most samples, we use the original EQ anyway.

**Cooper:** I think with samplers, the possibilities are so far-reaching that most people are really only scratching the surface when they use them. It's not as if we've dried up with that particular machine, and, "Oh I wish I had this gadget or that feature." We still have so much to do with the gear we've got. ■

# "SHORT CUT TO PURITY"

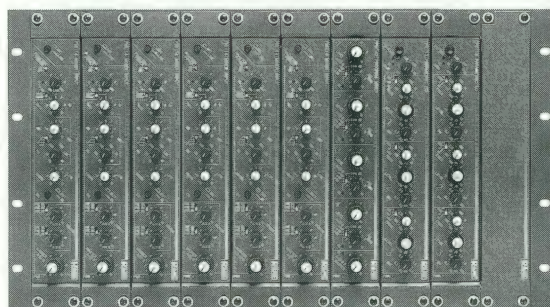


The Flex Series FMI 14 Microphone Preamplifier is simply the shortest path to the cleanest, purest recordings — digital or analog. This compact module offers the kind of serious features found on big consoles, but without the extra circuitry, switching and long routing lines.

Features like an ultra-low noise/low distortion mic preamp stage, 48V phantom, our patented Accelerated Slope™ EQ, fully assignable aux sends, external power supply and the new HR format.

More leading recording engineers are taking advantage of the minimum coloration and maximum performance flexibility found only with the FMI 14. From the Flex Series...pure and simple.

RANE CORPORATION 10802-47th Ave. W., Mukilteo, WA 98275. (206) 355-6000





# Quality.

**"It's not the toys, it's the noise.  
These libraries are aaaaaawwwesome!"**  
—**RICKY LAWSON** (Whitney Houston, Michael Jackson, Phil

## NEW → PRODUCTS

### David Torn: Tonal Textures

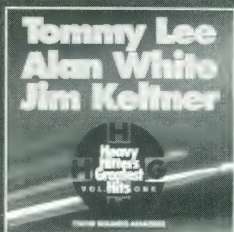
"David is a master of texture from the beautiful to the bizarre." —ALAN WHITE  
"He creates very special musical landscapes with his loops that evoke an infinite spectrum of moods, ambiances, colors & feelings."

—TERRY BOZZIO

CD-Audio \$129<sup>00</sup>/CD-ROM \$399<sup>00</sup>



State-of-the-art reverb samples to enhance dry percussion samples and rhythm tracks.  
CD Audio \$79<sup>00</sup>



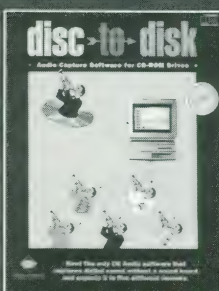
**Heavy Hitters  
Greatest Hits CD-Audio/CD-ROM Drum Library.** This versatile, clean and powerful disk features the drum hits of the entire kits of Alan White (Yes), Tommy Lee (Mötley Crüe) and Jim Keltner

(legendary studio drummer).

CD-ROMs now shipping for the EIII/X, SampleCell/II, Akai S-1000, Kurzweil K-2000 and Roland S-770, SP-700 and S-760.

CD Audio \$99<sup>00</sup>

CD-ROMs \$299<sup>00</sup> (Roland: \$399<sup>00</sup>)



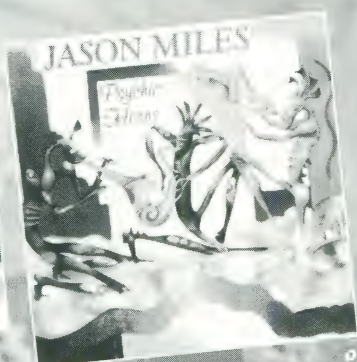
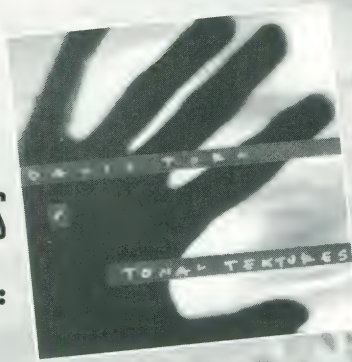
Disc-to-Disk-CD-Audio recording software for your Macintosh. Direct digital hard disk recording over SCSI. Capture audio in AIFF/AIFC, SND, QuickTime Movie, Sound Designer II and Windows WAV formats. Created by Optical Media International. Audio portion includes 30 minutes of unique music clips, stingers, cues & SFX by Q Up Arts. \$199<sup>00</sup>



**Q UP ARTS**  
P.O. Box 1078  
APTOS, CA 95001  
TEL: 408.688.9524  
FAX: 408.662.8172



4 0 8 - 6 8 8 - 9 5 2 4

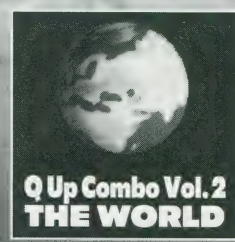


### Psychic Horns by Jason Miles

The ultimate collection of brass

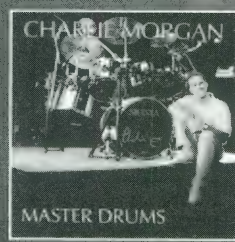
loops/riffs & samples of Pop, Funk, R & B, large and small sections of Stereo Trumpet, Tenor Sax & Trombone.

CD-Audio: \$99<sup>00</sup>/CD-ROM: \$299<sup>00</sup>

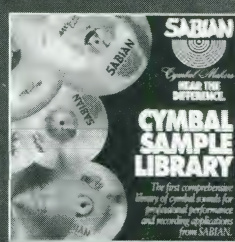


### Q Up Combo Vol. 2 THE WORLD

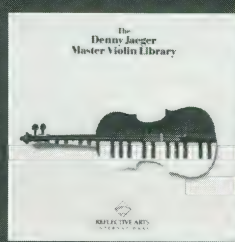
**COMING SOON!**  
Q Up Combo  
Volume 2:  
"The World"  
Instruments &  
percussion from  
everywhere on  
the planet.  
CD-ROM \$199<sup>00</sup>



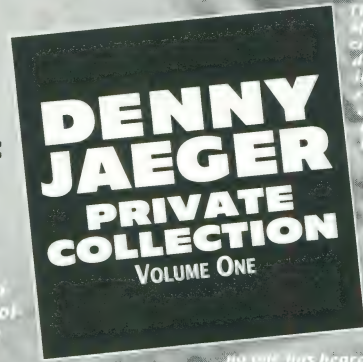
Over 100 loops & 60 samples. Loops offered from every type of music: Blues & Jazz, Ethnic, Rock & Soul. Charlie Morgans is "The Time Machine."  
"It's like having your own drummer right in your studio." —JASON MILES  
CD-Audio \$99<sup>00</sup>  
AKAI CD-ROM \$249<sup>00</sup>



From the world's leading cymbal company: 2 CD-audio discs of the most incredible cymbals.  
Two CD-Audios  
FOR \$99<sup>00</sup>



**EIII/X CONDENSED**  
\$495<sup>00</sup>  
**EIII/X 3 DISC SET**  
\$1200<sup>00</sup>  
**AKAI S1000 3 DISC SET**  
\$1200<sup>00</sup>  
**ENSONIQ EPS16+/ASR-10**  
\$349<sup>00</sup>



The Denny Jaeger Master Violin Library created a new standard in the sampler industry. Now experience audio quality and patching techniques that belong in the 21st century, introducing the first in a series—The Denny Jaeger Private Collection Vol. 1. Sounds that have been proven to work in high-end record and film production. Plus a whole new collection of amazing sounds.

no one has heard before. A complete massive collection of high power, high-utility sounds, many of which were created for 24-bit architecture. Everything from gorgeous keyboard pads to "money-no-objects" musical sound effects. Patches so intricate that they become virtual instruments, yet are very easy to play. Orchestral multi-octave string stabs the size of Godzilla that let you play your own chords. Unbelievable organic low-end sounds that will rattle your walls down to 30Hz. Brass, woodwinds and...  
CD-ROM \$399<sup>00</sup>



The first and most affordable mixed-mode multi-platform CD-ROM/CD-Audio. Contains CD-Audio tracks of every sample! Works perfectly with K2000, Akai S1000, 1100, S3000, EIII/X, Roland SP-700 & new S-760.

## \$100 for all this:

David Torn: "Tonal Textures"  
Denny Jaeger: State-of-the-Art Brass  
Sabian Cymbals  
Trails & Reflections  
New Indian Percussion & Instruments from Madras India  
Jason Miles: Funk Keys & Percussion  
Charlie Morgan: Master Drums drum loops  
Heavy Hitters: drum samples  
Michael Caraballo: Conga loops

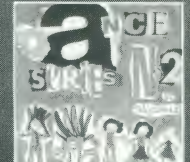
### Dance Series #1

CD-Audio: \$99<sup>00</sup>



### Dance Series #2

CD-Audio: \$99<sup>00</sup>



Now Available from Q Up Arts  
The Entire Roland CD-ROM Library




**Rhythm Section Vol. 1**  
\$495<sup>00</sup>  
**Orchestral Family Vol. 1 & 2**  
\$595<sup>00</sup>  
**Orchestral Percussion Vol. 1**  
**Orchestral Winds Vol. 1**  
**Drums and Cymbals Vol. 1**  
**Guitar & Bass Vol. 1**  
**Solo Strings Vol. 1**  
**Brass Sections Vol. 1**  
**Super Sax Vol. 1**  
**Symphony Orchestra Vol. 1**  
**Keyboards of '60s & '70s V.1**  
**Keyboards of '60s & '70s V.2**  
**Africa Vol. 1**  
\$175<sup>00</sup>  
**Jazz Vol. 1**  
**Dance Vol. 1**  
\$195<sup>00</sup>



Illustration: Vicky Rabinowicz

Experimental Composers Jam the Loop



 Samplers are not just a dance club tool. They've found a home in contemporary classical music as well. Today, composers like Paul Dresher and Carl Stone are using samplers to extend a tradition that dates back more than 40 years to experiments

# the universe is their ORCHESTRA

by Mark Grey



# REVIEWERS & SATISFIED OWNERS WROTE THIS AD ABOUT OUR 8-BUS CONSOLE SYSTEM.

1994  
MUSIC & SOUND  
Award

Most Innovative Product of the Year  
MACKIE DESIGNS 8-BUS MIXER  
January 22, 1994

Winner of Music and Sound Retailer Magazine's awards for "Most Innovative New Product" & "Best New Console/Mixer" of 1994.

NEW! 24•E 24-ch. expander  
NEW! 11-rack space "Sidecar"

**"The mic input circuitry is the remarkable low noise design that first brought Mackie into the spotlight."** H&SR (UK) 2/94

32•8 shown (instead of 24•8) because we had a cooler picture of it.

**"I'm happy to report that the desk maintains Mackie's reputation for clean, quiet circuit design. Some of my tests, involving CDs, showed up the noise on the original recording quite clearly. Even without the EQ switched in, the desk displayed a very open, transparent quality."**

Sound on Sound (UK/Europe) 12/93

**"One of the mixer's most impressive features is the channel EQ section. The amount of tonal control is awesome."**

Electronic Musician 2/94

**"Killer, sweet-sounding, mega-versatile EQ!!!!"**  
R.T., Los Angeles, CA

**"Flip... allows you to choose the signal that's fed to the channel strip and conversely selects the signal that is sent to Mix B, the powerfully featured monitor section. Yes you can still access all the gear you plumbed in without having to repatch a thing. This... effectively doubles your inputs. It's ideal for mixing situations when you have stuff playing live from a sequencer coming in on Mix B."**

H&SR (UK edition) 9/94

**"The board's price may put its primary market in the personal studio and small project studio, but it's crammed with truly professional features. Home recordists can stay with the Mackie 8•Bus as they upgrade from semi-professional to professional gear, thanks to the board's ability to run either +4 dBu or -10 dBV operating levels. Everyone (and I mean everyone) who saw the 8•Bus wanted one, and the desire was intensified if they stuck around to hear it."**  
Electronic Musician 2/94

**"Replaced a \$20,000 console with the 24•8. Your console kicks butt over my old one. I love the EQ, the headroom and even the pans."** D.C., Burbank, CA

**"Amazing. Beautiful. Sexy. I've been waiting for six years for someone to come out with a mixer like this."** J.C., Charlotte, NC

**"With excellent sonic quality, frequency response, harmonic distortion and crosstalk specs, number of inputs, plenty of headroom, good-quality mic preamps, and the upcoming automation package, the price of the Mackie 24x8 seems insignificant."**

MIX magazine 2/94

**"When I read about your 'quiet' fan in your power supply manual, I almost fell over. When I didn't hear it, I fell to my knees. When I brought up fader after fader and still heard nothing, I almost blacked out! Who in the world EVER realizes that audio gear must be quiet? I love you people."** D.S., Palmdale, CA

**"Used a competitor's console while waiting for your 8•Bus and will never use the other board again. Yours is quieter, has better mic pre's, better EQ, more logically laid out, much cleaner sound and better quality construction."**  
P.P., Salt Lake City, UT

**"The back of the board has 24 submaster/tape outputs incorporating a triple bus system normalizing your submaster to tape ins on the multitrack. When you send a signal to submaster 1 output, for example, it**

**appears at submaster outputs 1, 9 and 17, which simplifies operations with 8-, 16- or 24-track recorders."**  
MIX magazine 2/94

# MACKIE.

Mackie Designs Inc • 20205 144<sup>th</sup> Ave NE • Woodinville • WA • 98072 • 800/898-3211  
FAX 206/487-4337 • Outside the U.S., call 206/487-4333 • Represented in Canada by S.F. Mktg. 800/363-8855



# S a m p l i n g

## NATION

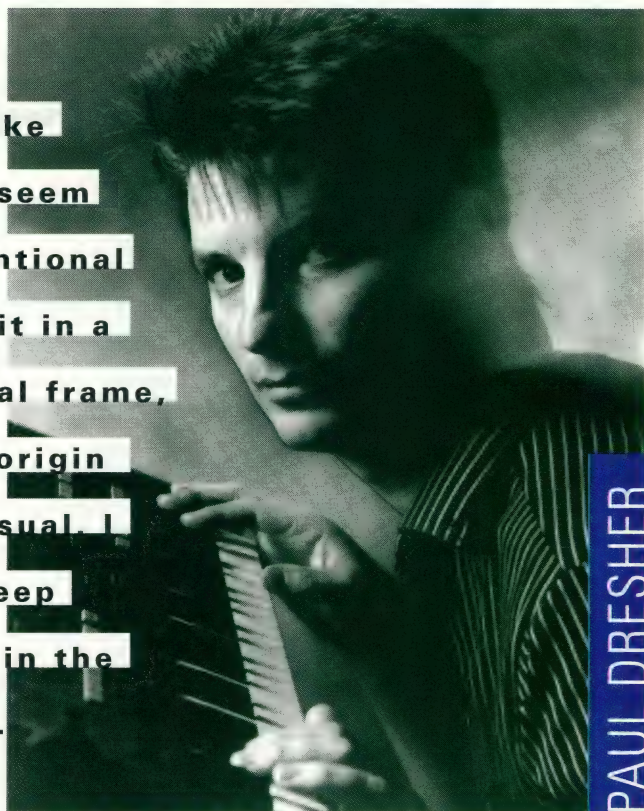
### Experimental Composers

in institutions such as the Radiodiffusion Française and the Columbia-Princeton Electronic Music Center, where tape loops and tape splicing allowed natural sounds to be used freely in musical contexts for the first time.

Though his roots are in rock guitar, Paul Dresher has become an internationally recognized composer and performer, along with his ensemble, of music for contemporary theater. Sampling and looping acoustic instruments that are being played in nontraditional ways is an essential part of his approach to composition. Prime examples can be heard on his collaboration with Ned Rothenberg, *Opposites Attract* [New World Records, 701 Seventh Ave., New York, NY 10036]. His recordings and scores are also available through Minimax Music [2236 Sixth St., Suite B, Berkeley, CA 94110].

Carl Stone often samples short excerpts of western instrumental music and urban environments. The vibrant minimalist piece called *Shing Kee*, which is heard both on his latest compact disc, *Mom's* [New Albion, 584 Castro St. #515, San Francisco, CA 94114] and on his self-produced *Four Pieces*

You can make something seem very conventional by putting it in a conventional frame, even if its origin is very unusual. I prefer to keep that origin in the foreground.



PAUL DRESHER

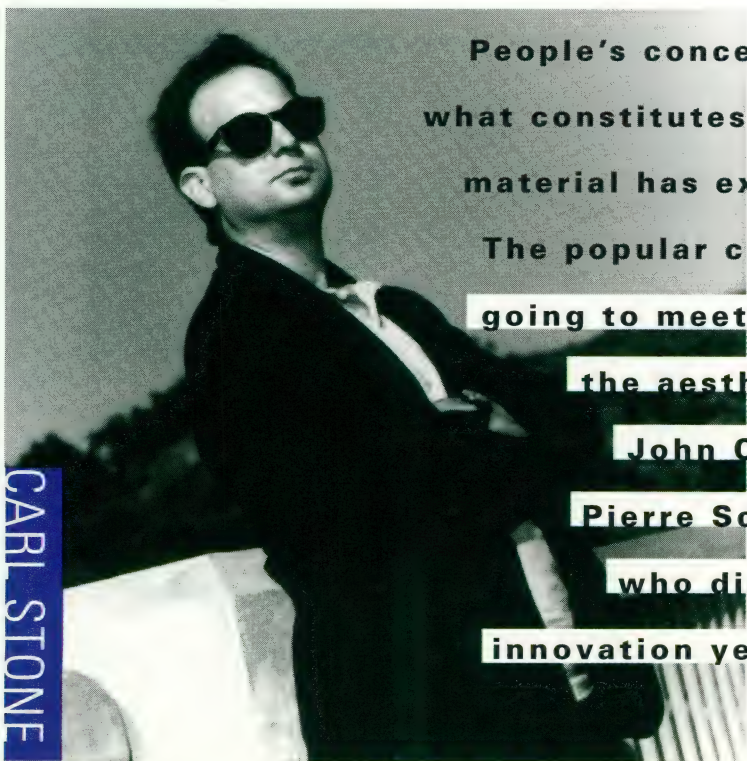
CD [Electro-Acoustic Music, 4104 24th St. #410, San Francisco, CA 94114], develops through the unwrapping of a single sampled phrase. Each time the phrase repeats, slightly

more of it is used, but with slightly less time-stretching; it begins as an abstract digital sonority and is completed as a coherent tonal gesture. Stone has also been involved in dozens of multi-art projects, both in the U.S. and abroad.

Dresher's and Stone's music is difficult to classify, because of the strong influences from both the academic and pop music traditions. Here's a brief look at their sampling methods.

People's conception of what constitutes musical material has expanded.

The popular culture is going to meet up with the aesthetics of John Cage and Pierre Schaeffer, who did all the innovation years ago.



CARL STONE

## PAUL DRESHER

What are you currently using samplers for?

Samplers function in a multiplicity of ways in my ensemble. The simplest way is basically as a single instrumental timbre which may or may not be doubled by another sample or another synthesizer. The more interesting things we've done with sampling have been where we sampled a long musical event. Within that event is a lot of information. It's not just the timbre; it may have rhythm and melody, it may have spectral shift — it has a life of its own. The music is usually composed around what's inside that sample.

The sample could come from anywhere. In the piece *The Gates*, the opening sound is a street grinder. It was tearing up the street, and I went out there with a DAT deck and recorded about ten minutes of it. That was



# Orbits



## Audio Morphing™ You Haven't Heard This Before!

Vortex is the most radical piece of digital signal processing gear you've ever heard. Among the innovations in Vortex is its ability to "morph" from one effect to another, allowing you to create something totally unique along the way.

Lexicon's unique Audio Morphing™ effects technology creates a complete parametric and algorithmic restructuring of two completely independent stereo effects (like those ads where the car transforms into a tiger...). The "morph" can be anywhere from 0.01 to 10 seconds. Or, use your expression pedal to morph in real-time. What's more, it all takes place in a very easy-to-use single rack space device. What does Audio Morphing™ sound like? Incredible.

Dial-up any of our 32 built-in stereo effects and the first thing you'll ask yourself is: "What's going on here!?" All of the Vortex effects come alive in response to your playing. For example, on some effects, as you play louder the echo level decreases. On others, as the sound fades away, modulation increases. Vortex's controls give you fast and easy access to the dimensional, rhythmic and dynamic aspects of each effect — including two LFO's with independently variable Rate, Depth and Resonance. Two independent echoes allow you to set-up polyrhythms which can be synchronized to your music with the Tap Tempo. With Vortex's A/B (Morph) switch you can even remotely change channels on your amp!

In addition to our 32 Presets, you can create 32 User Registers of your own, morph between any pair and set-up custom register "chains". And, of course, Vortex features that crisp, clean Lexicon sound at a price that's nearly as incredible as the effects themselves.

Get into an authorized Lexicon dealer today and check it out. Then listen to what real insanity is like when you hook Vortex up to our Alex and JamMan processors. But, be careful, once you get caught-up in a Vortex, you might not want to get out...

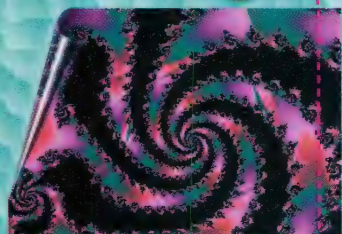
# Lexicon

## HEARD IN ALL THE RIGHT PLACES

Lexicon, Inc., 100 Beaver Street, Waltham, MA 02154 Tel: (617) 736-0300 Fax: (617) 891-0340

A Harman International Company

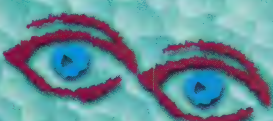
# Deja Vu



# FRACTAL



# AEROSOL



# REFLEXION

# Deja Vu



# BLEEN

# ATMOSPHERE



# SWEEP



# Sampling NATION Experimental Composers

a story itself, because the guy thought I was going to sue. I said, "No, no, I'm using this for music." There was a lot of rhythmic content, because these giant jaws were grinding at the concrete. So I took it and put it into [Digidesign] Sound Tools and I basically defined the rhythm using that sample. There's no pitch, it's just a very percussive change of spectrum. I cut it up into different things and then reassembled it into discrete samples, all which have the same rhythmic pace. Playing those different samples becomes the rhythmic core of a very aggressive section of music.

In that same piece are long samples of Ellen Fullman's "Long Stringed Instrument." There's a huge amount of spectral shift over a long period of time, and the harmonics just soar: They keep changing with very little rhythmic content, but it's an incredible array of spectra, particularly if you transpose the sample down. The high harmonics become very audible, and they can take on a rhythmic life of their own. You get beat patterns,

you get changing pitches that are like overtone singing. With filtering, you can actually focus in on those sounds, extract the individual features, and make them a principal part of the musical content.

So sampling offers a full range of resources, starting with just instrumental timbre, just like a sample playback machine. . . or you make a sample of dropping a ping-pong ball on some kind of resonant surface and make that the attack, and you make a decay out of a sample of humming light fixtures, which can give wonderful decays off of hard attacks. . . . What I do is make the sample, and then I listen to it. I play it on a keyboard or a MIDI guitar and say, "What music is coming out of the samples here?" As opposed to saying, "I'm going to have this concept for music and I'm going to look for ways to orchestrate it with my samples." It's the opposite.

*Do you ever start by composing the ensemble piece and then inserting the samples?*

Well, that happens in a different process. I've been taking existing music, notated music, and reorchestrating it for electronic instruments. In that case I'll do an analysis of, "What was the composer's intention for choosing the sounds that they did? And what can I do to be honest with the composer's

intentions but still expand it using contemporary technologies?" I'm working on some of Cage's prepared piano works. Now, Cage didn't have the resources for a full percussion orchestra for this dance commission. He wanted to find a way to expand the resources of what could be done on a single instrument, the piano. So extending the logic of his invention seemed a very reasonable step for me. He's working with different kinds of timbres, different kinds of spectrums, different kinds of decay and sustain rates, and he's composed his music based on these elements. If I follow those compositional concerns, I could use different timbres, coming from industrial sources and all sorts of different sources of sound. I can reorchestrate those pieces, still being true to the original compositional intent. They may have a very different sound, but I think the result is still true to the composition.

*Most of the time, though, your use of samplers is very different from the familiar practice of sampling single notes.*

You know, Western musical instruments have largely been structured to produce a very uniform sample-friendly tone. But most natural sounds are not that way. When I say "natural" I mean things that are not normally thought of as musical sounds, whether it be

## SOUNDS! SAMPLES!

## Sampling Cassettes!

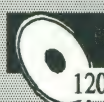
## Rhythm Patterns!



**Recorded on Maxon XLII**  
**For Use with ALL Samplers!**

- Volume 1 - 836 Orchestral & Synth Sounds!
- Volume 2 - 600 Best of the DX7 Sounds!
- Volume 3 - 500 Drum & Percussion Sounds!
- Volume 4 - 500 Useful Sound Effects!!
- Volume 5 - 1,000+ D50, Kurtz, Matrix Sounds!
- Volume 6 - 850 Great M1 Sounds, incl. Drums!
- Volume 7 - 692 E-Mu Proteus Sounds!
- Volume 8 - 500+ Korg Wavestation Sounds!
- Volume 9 - 500+ Yamaha SY77 Sounds!
- Volume 10 - 500+ SY99 Sounds!
- Volume 11 & 12 - 900+ 01/W Sounds!
- Volume 13 - 150 Rock, Hip-Hop, House Loops!

Cassettes: Just \$29.95 each! Any 3: only \$75.00!!  
Specify: Dolby B, Dolby C, or Dlx Noise Reduction



### Drum CD!

**1200 GREAT DRUM SAMPLES!**  
"High-Quality" CD... Only \$69.00!!

### The Drum Book! 500+ Patterns!

Rock, Latin, Jazz, Funk + Much More! Incl. Fills!!  
Easy Step-Input for All Drum Machines! \$21.95

### Sequencers! 2000+ Patterns!

Atari ST, MAC, IBM Standard MIDI Files!  
Also for MC-500/50, W30, MMT-8, Q-80, QX-3,  
QX-21 (Specify Roland, GM, or Yamaha Keymap)

**Workstations: Complete with Mapped Kits!**  
01w, T1/2/3, M1, SY77/85/99, VFX-FD, MPC-60  
2000 Patts/Fills (Many Styles): Only \$69.95!!

### Drum Machines! 1000+ Patterns!

HR16 & SR16 Rhythm Pkg! Only \$69.95!  
**Endorsed by Alesis!** (Alesis MDR or DataCassette)

Great Packages also available for RX5, RX7, RX11  
RX15, RX17, RX21, DDD-1, DDD-5, R5, TR505,  
TR626, TR707!! On DataCassettes Only: \$49.95!

MIDI CABLES / INTERFACES  
RAM CARTS - DX7 & DX7III  
SYNC BOXES, MIDI GEAR,  
RAM EXPANDERS, DISKS,  
DISK CASES, CASSETTES, SOFTWARE, and MORE!!

**2.8 Quick Disks**  
\$35.00 per box!

Send for our FREE CATALOG!

Shipping Info: U.S.A.: \$4.50 P/H (Hardware Items: \$7.50) - Alaska / Hawaii / PR / Canada: Add \$11.00 (Hardware Items: \$15.00)  
Foreign Orders (M.O.): Add \$15.00 + \$2.50 per Item Ordered / Foreign Orders (Credit Card): Add \$30.00 (International Air)

## SoundSations!

370 Mt. Vernon

Grosse Pointe Farms, MI 48236

Info: (313) 885-1539 - Fax: (313) 885-2571 - Order Line: (800) 422-0575



**Demos available!**  
**Call or write**  
**Today!**



# Sampling NATION Experimental Composers

the sound of animals, the sound of the wind, or whatever. I spend a lot of time investigating these sounds and putting them into a musical context. When I'm sampling environmental sounds, I'm not dealing with it as an environment, I'm looking for music that I can pull out of that sound.

The thing that I think sometimes goes wrong in this regard, or it's not wrong but

it's less interesting, is that people will sample something that is unique in its origin but then they'll bury it in a mix of conventional sounds. If I'm going to combine lots of [instrumental] sounds with interesting samples, I'll want those [other] sounds to be interesting in and of themselves, and not be relatively conventional referential sounds. You can make something seem very conventional by putting it in a conventional frame, even if its origin is very unusual. I prefer to keep that origin in the foreground, to preserve that unique life of where the sample came from.

*Do you use time-stretching algorithms?*

I'll often have to do that if I'm looking to bring out a rhythmic element in the sam-

ple. Let's say you have four events and you'd like to space them like beats, a bar of 5/4 with three quarter-notes and a half-note. But one of the beats is too long and one is too short. If it's too long I'll take a section of it and time-compress it bit by bit until I can pull it into a beat that feels right. Sometimes, depending on the type of sound, you can snip out bits of the sample, but that sometimes creates discontinuities.

*Do you ever sample from existing CDs, or other artists?*

I've never done that, though I have sampled from some animal sound effects recordings. So I haven't had to deal with the copyright issue. I admire people like John Oswald, who both creates something fantastic from his own aesthetic sense and then does something in reference to pop music, but personally that's not what I needed to pursue. I think you need to do that when what you're doing is to reference the power of what you borrowed, which is clearly what [Oswald's] *Plunderphonics* was. There was no attempt to hide the source. And he did a fantastic thing with it.

## KORG 01/W and X3 Owners! Test drive a new synth FREE for 15 days.



That's right. Our new synth comes on a PCM card that plugs

right into your Korg 01/W or X3. Introducing InVision's SoundCard™ series.

These aren't new combi's or programs. Each 2 megabyte SoundCard contains all new InVision samples that will flat out blow you away.

Our Acoustic card gives you steel-string guitar, concert harp, sweet solo violin and ebony flute, plus other instruments so authentic you won't believe

your ears. The Pop card includes Hammond organs, electric pianos, distortion guitar, and

astounding percussion sounds that will take your creativity on a wild new ride.

So stop wasting time tweaking sounds. And stop buying program cards that keep using the same sounds over

and over. Test drive a SoundCard and the 100 new programs and combi's that come with each one.

Don't like the card? Just send it back.



Call us today at  
**800.468.5530**  
for your FREE test drive.  
Mention K55



**KORG InVision**  
INTERACTIVE

a sound partnership

## CARL STONE

*Carl, what are you currently using samplers for?*

Well, as has been the case over quite a few years now, 90 percent of my sampling activity involves the use of appropriated music which I then transform in radical ways, usually to the point of unrecognizability. I was doing that kind of thing before samplers were either available or affordable. But now that they are, they're really the perfect tool for what I've been interested in for a long time.

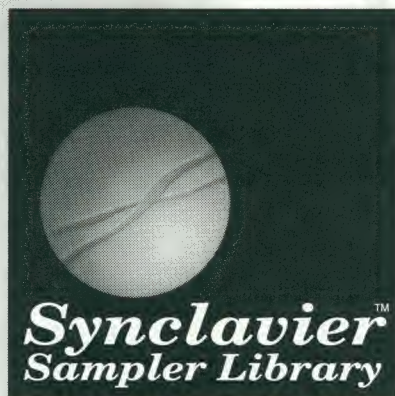
I'm interested in time compression and expansion. The ability to separate the functions of time manipulation and pitch manipulation is a really important aspect of digital sound processing for me. In the old days, with tape recorders, if you made something higher or lower in pitch you had to face the fact that it would become either slower or faster in time. Those two functions were linked. Now they are completely independent of each other. I've been interested in playing with the time, and that's one of the reasons why it's interesting to work with familiar musical material, because people can relate. When you play with time, people can relate what they're hearing to a known quantity. They have some point of reference, and so the impact is much more clear and more coherent.

*What about copyright issues?*

I haven't encountered any problems, be-



DRUMS  
BRASS  
EX  
STRINGS  
SYNTH  
PIANOS



PERCUSSION  
WOODWINDS  
GUITARS  
VOICES  
INDUSTRIAL

## The Sample Truth



**New in '94**, the world-class Synclavier Sampler Library™ for **SampleCell™**, **Akai™**, and **Roland™** samplers.  
Four volumes on CD-ROM. Each just \$399. Call 800/747-ILIO (4546) for information.



Produced and distributed by ILIO Entertainments • PO Box 3772 • Chatsworth, CA 91311 • 818/883-ILIO (4546) • FAX 818/883-4361  
All trademarks are property of their respective holders. Some sounds looped with Infinity™ by Jupiter Systems. Some sounds edited with Soundz Better!™ by ILIO Entertainments.



# It's The Real Choice!

## MIDI Interfaces for All IBM Compatibles

Key Electronics' unique serial port design set the new standard for **IBM to MIDI**, allowing the user to connect to any PC compatible serial port. Needs no external power, no installation or system modifications.

### SOFTWARE COMPATIBILITY

**We offer the largest commercial software compatibility of any external Interface.**



MS-124



MS-101

Serial

### PORTABLE MIDI POWER - 64 CHANNELS

with our **NEW MP-128N**. This configuration is optimized for the live performer and portable MIDI user. One MIDI input and four independent MIDI out ports. It provides the MIDI throughput that today's live performers need.



MP-128N

Parallel

MIDI musicians do not have to compromise on choosing a parallel port MIDI interface. Key's modular design delivers the features you need, at a price you can afford, with options for future enhancements. Plus, all versions can be upgraded as your requirements grow. Our **MP SERIES** has the highest output capacity available. All come with Windows Drivers with advanced control features.

**The External PC Interface Pioneer Since 1988**

**KEY**  
INC.  
ELECTRONICS

7515 Chapel Avenue  
Fort Worth, TX 76116  
Office (817) 560-1912  
FAX (817) 560-9745

See your dealer or Call

**TOLL FREE**  
**1-800-533-MIDI**  
(1-800-533-6434)

## S a m p l i n g NATION Experimental Composers

cause I've learned to get permission and clearance on the rights for the material that I use if I'm going to make a commercial release. You never know where you're going when you start out using some piece of music. You may develop it to the point where it actually becomes a piece, or you may be working with it and it won't go anywhere. It's kind of stupid to go through the whole rather laborious and boring process of getting clearance for the rights for something that you may not even use. So you end up dealing with those issues after you've made your piece, but of course after you've made the piece you have no guarantee that you'll get the rights. In which case, you may be stuck with an artifact that you can't, in principle, present or at least release commercially.

It's kind of a dilemma. I'm not a pirate who believes that music wants to be free and that everything is there for my taking, and that I should have no concern about the rights of the artist, or any of the other people down the economic chain. I don't believe that. I think that those people do have rights. I wish they were a little more reasonable sometimes in their willingness to negotiate with people like me who are basically working on the fringes, who aren't releasing highly commercial projects. It's not like I'm taking hundreds of thousands of dollars out of their hands.

*What do you see in the future for sampling?*

I never got into tea leaf or crystal ball reading, but clearly the technology is advancing fast. With the rise of digital technology, the whole relationship of master to copy is completely blurred. The ability to clone without degradation has opened up so many new possibilities, and as storage becomes larger that's just going to compound itself. In the immediate future, I think the tools that we have now that aren't real-time will become available on a real-time basis. That's going to be a fantastically powerful instrument for live performance.

I think people's conception of what constitutes musical material has expanded. The popular culture is going to meet up with the aesthetics of John Cage and Pierre Schaeffer, who did all the innovation years ago. It's gratifying to me that people are starting to integrate these ideas, whether knowingly or not, because it would have been just so boring if everybody was just using their samplers to try to get the perfect violin sound. ■



# TO BE IN THE FOREGROUND, HAVE PEAVEY BEHIND YOU.



## DAVID SANCIOUS

David Sancious is in the foreground of today's biggest names. David depends on the power of Peavey. If you've ever witnessed a David Sancious performance, you know exactly what we mean. David demands a lot from his equipment. He employs the most versatile and powerful keyboard controller available, the Peavey DPM<sup>®</sup>C8. Not only is the C8 the MIDI controller of choice among the hottest players in the business, but it's built, like all Peavey products, to handle the rigors of the road as well as the repetitive pursuit of perfection in the recording studio. Let's face it, powerful players want powerful equipment, to match their high-performance energy levels. Before you jump on the imported brand-name bandwagon, experience the DPM C8 — American made, and built with pride by Peavey Electronics, the home of innovative ideas that are changing the perception of musical equipment forever.



# PEAVEY<sup>®</sup>



# Big Fish Audio

## Audio CDS:

Ambient, Progressive, Trance, Techno, Rave- These styles are rapidly evolving. Most of the synth loop discs on the market feature outdated synth and bass loops that would fit right into a cheesy commercial or a Sega video game, but just won't cut it in 1994. This disc is packed- over 70 minutes of trippin' **NEW** Analogue Grooves and Synth / Bass Loops. Step back, Look ahead.



\$99.95

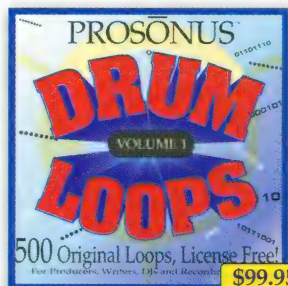


Fat Fresh and Phunky, Drum Loops Volume 2 contains the freshest dance and **rap grooves** from some of LA's hottest producers. Also includes the samples used to construct the Loops, **DJ Scratches** and Cool Percussion FX. Rap, Old School, New School Industrial, and Techno- from 95 beat LA Hip Hop to 140 beat Berlin Rave. This disc is the perfect compliment to Volume 1.

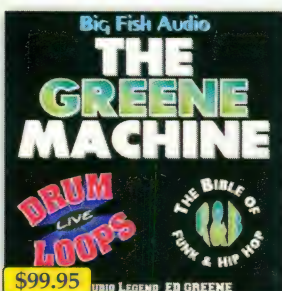
500 New Loops, DJ Scratches and Drum Samples

\$99.95

**Over 500** Rap, Hip Hop, Techno, Industrial, Rave and Go Go Loops on the loops disc that started it all. Variety and Value- there's not a dud on this disc. The edits/are precise, the tempos are correct and the sounds ooze authenticity. Representing a broad cross section of dance and street styles, Drum Loops Volume 1 is the disc you'll turn to again and again when you need a **Big, Bad Beat**.



\$99.95



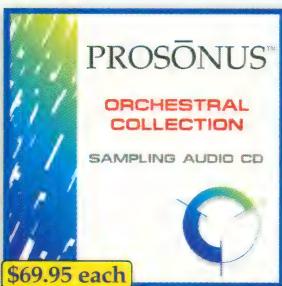
\$99.95

Ed Greene- One of LA's top session players, monster groove drummer, and the man behind the **funky R&B** sound of artists from the Jacksons to Steely Dan & smash 70s hits by Donna Summer and Barry White. This is the perfect disc for the producer looking to give an R&B ballad an authentic "off the record" feel or the Hip Hop engineer searching for something live and funky. **500 Loops**

This Sampling Audio CD contains the entire **1,200 stereo sample drum and percussion library** of Ross Garfield. For years Ross Garfield's Drum Doctors have been the first and only call when the world's top drummers won't settle for less than the sound. (Jeff Porcaro, Terry Bozzio, Lars Ulrich). Ross has also lent his expertise to sessions with Alesis and Bob Clearmountain.



\$99.95



\$69.95 each

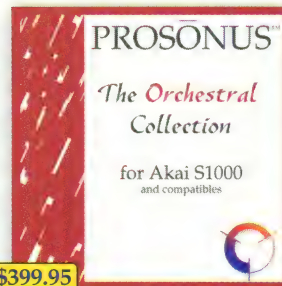
- |                        |                               |
|------------------------|-------------------------------|
| <b>B01</b> Trombones   | <b>S01</b> Electric Guitar    |
| <b>B02</b> Trumpets    | <b>S02</b> Orch. Strings      |
| <b>B03</b> French Horn | <b>S03</b> Violin Solo & Sect |
| <b>B04</b> Brass Sects | <b>S04</b> Cello Solo & Sect  |
| <b>E01</b> Synths      | <b>S05</b> Viola & Bass       |
| <b>FX1</b> Foley       | <b>S11</b> Sampler Sampler    |
| <b>FX3</b> Ambiences   | <b>W01</b> Woodwinds          |
| <b>K01</b> Pianos      | <b>SRD</b> Studio Reference   |
| <b>P01</b> Exotic Perc | <b>CO1</b> SMPTE Code         |
| <b>P02</b> Orch. Perc  | <b>S11</b> Speech Intellig.   |

Ever notice how much better a real MiniMoog sounds than the patch in the sample playback synths? You just can't make decent patches in the limited ram in those little black boxes. This 600 Meg CD-ROM has a **dino-size** selection of vintage keyboards! Patched to perfection. Arp, Farfisa, Clav, Mellotron, Moog, Oberheim, Roland, Wuritzer, Korg, Crumar, Emu, Sequential & way more. For **SampleCell**.

## CD-ROMS:



\$399.95



\$399.95

**All new** selections from the highly acclaimed Prosonus Orchestral library professionally formatted for the **Akai S-1000**. This CD-ROM contains solo strings, string sections, woodwinds, brass, orchestral percussion, harp and much more. If you get only one CD-ROM for your Akai (or compatible), this should be the one. **You've never heard your Akai sound so good.**

The Sound Designers involved with Ross Garfield's renowned collection have remained true to his vision of a no compromise **Drum and Percussion Library**. The CD-ROMs contain every sample in the Drum Doctor's library as well as exhaustive selections of kits and banks. Mapped in versatile GM format & kits that contain numerous articulations of each instrument. **Akai, Roland, Emu & SampleCell**



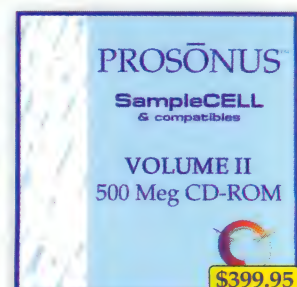
\$399.95



\$99.95

A world-class piano, a great room, top microphones, dynamic articulations and the best formatting available result in the definitive Studio Piano on CD-ROM. Emphasizing realism and usability, this disc features piano patches from four megabytes all the way up to a whopping **64 megabytes**. **The best piano on CD-ROM- for only \$99.95.** **SampleCell, Akai & Roland**

When you bought your SampleCell, it came with a great collection of our Samples. **SampleCell Volume II** is the disc that fills in the gaps. The disc is packed with over 600 megabytes from the Prosonus Orchestral collection and great Rock and Pop sounds. Including Bases, Brass, Electronics, Harp, Percussion, Special FX, Synths, String Sections, Solo Strings and much more.



\$399.95



**SATISFACTION GUARANTEED!**  
Call for our **FREE Catalog & Demo Disc**- Get on our preferred mailing list, & ask about our package deals.



**TOLL FREE ORDER AND INFO LINE (800) 717-3474**

11003 Bonanza Street Suite C, San Valley, CA 91352, Tel: (818) 768-6115, Fax: (818) 768-4117



# 25 HAMMOND

# LICKS YOU

# MUST KNOW

Okay, You've just managed to create a great organ patch; now, what do you do with it? The legendary B-3 sound is only partially made of drawbar settings and rotating speaker effects. Much of what is heard as the B-3 sound is due to playing technique. Here are some

fun riffs to help you understand the techniques used by organists to obtain the B-3 sound.

Drawbar settings and Leslie control changes are noted on the examples as a guide, but feel free to experiment. Leslie control changes are shown by indicating

**B Y D A V E A M E L S**



# 25 HAMMOND LICKS YOU MUST KNOW

when the switch should be thrown to speed up or slow down the Leslie effect, as well as when the Leslie reaches its final speed. The notation shown compensates for the typical delay of a model 122 Leslie (4-5 seconds). If you are using a synthesized Leslie effect that has a different speed-up and slow-down period, adjust the timing of the control switch accordingly.

Organ notes sustain indefinitely. This fact allows techniques to be applied to organ playing that would prove wholly unfruitful if applied to instruments such as the piano.

Example 1 sounds best when played in a large cathedral, preferably the same one used by Procol Harum.

## ABOUT THE AUTHOR

*Dave Amels is the president of Voce Incorporated, manufacturers of the Micro B organ sound module. He's been playing organ since 1968, and still can't work a sustain pedal.*

*Ex. 1. Play majestically and set your reverb to the Stone Church preset.*

Drawbar setting 80 0808 000

Leslie starts slow

↓ Leslie set to fast

J. Leslie max. speed

The musical score for 'The Rose Tree' is presented in two systems. The first system consists of a treble and bass staff. The treble staff features a melody with eighth notes and rests, while the bass staff provides a harmonic accompaniment with chords. The second system continues the melody and accompaniment. The key signature is one flat (B-flat), and the time signature is 4/4. The score is written for a single melodic line and a piano accompaniment.

Ex. 2. Give your thumb a rest. (See page 69.)

Drawbar setting 88 8800 000

Drawbar setting 88 8800 000



Ex. 3. Play legato; no decay here. (See page 69.)

Drawbar setting 88 5324 588

Leslie starts slow

↓ Leslie set to fast

↓ Leslie max. speed

[illegible]

Ex. 4. Rave up — high up. (See page 69.)

Drawbar setting 84 8848 448

Leslie starts fast

↓ Leslie set to slow

↓ Leslie min. speed

↓ Leslie set to fast

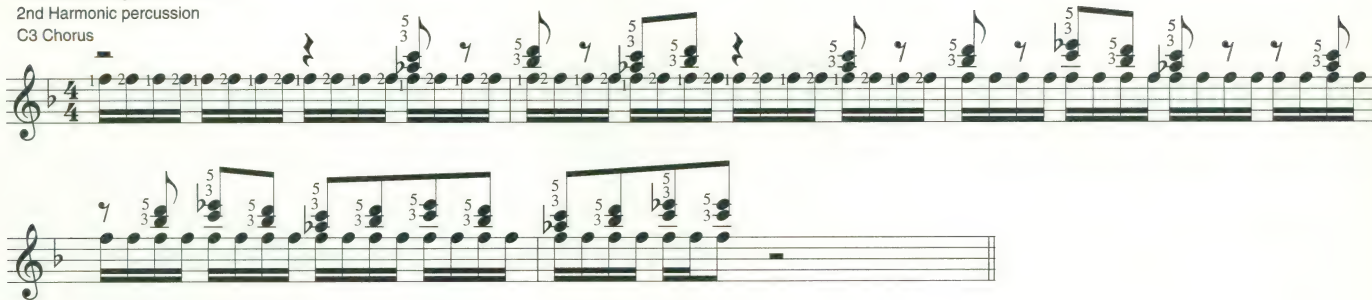
↓ Leslie max. speed

[illegible]



*Ex. 5. Single-note trills give maximum thrills. (See page 70.)*

Drawbar setting 88 8110 000  
2nd Harmonic percussion  
C3 Chorus



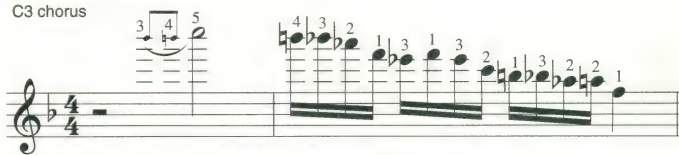
*Ex. 6. Be a soul man. (See page 70.)*

Drawbar setting 88 8630 000  
2nd Harmonic percussion



Ex. 7. Make it fast. (See page 70.)

Drawbar setting 88 8000 000  
3rd Harmonic percussion  
C3 chorus  5



Ex. 8. *E.T., riff home.* (See page 70.)

Drawbar setting 88 8800 000  
3rd Harmonic percussion



Ex. 9. No half measures: Use whole tones. (See page 70.)

Drawbar setting 88 8000 000  
3rd Harmonic percussion



Ex. 10. Two-fisted — er, handed — playing. (See page 72.)

Drawbar setting 88 8000 000  
2nd Harmonic percussion



*Ex. 11. Jump in with both hands, and check the fingering carefully. (See page 72.)*

Drawbar setting 88 8888 888  
Leslie slow





# Pro-Rec

## SYNTH SOUNDS

**SPECIAL!**  
BUY 2, GET A 3RD FREE!  
...AS MANY TIMES AS YOU LIKE!

**WEST**  
**ANYWHERE**  
**IN THE WORLD!**  
US FIRST CLASS MAIL ONLY \$2  
AIR MAIL ANYWHERE \$5

### CD-ROMS!

WE'VE SAMPLED OUR TOP RATED SOUNDS FOR THE WORLD'S TOP SYNTHS AND PUT THEM ON ONE CD-ROM FOR YOUR SAMPLER! INCLUDES EVERY SOUND DISK FROM EACH LIBRARY... ALL SYNTH, DRUM, PIANO & OTHER DISKS, & ALL SYNTH COLLECTIONS!

**Pro-Rec**  
**ULTIMATE CD**  
K2000 CD-ROM  
CAREFREE SAMPLE & PROGRAM EDITING FOR YOUR K2000  
DISK-101

**K2000**  
**ASR-10**  
**SAMPLECELL**  
**\$1000+**  
**299. EACH**

**OUR ULTIMATE CD IS NOW HERE**  
FOR THE **K2000** (OVER 2600 PATCHES)  
**ASR-10**/EPS16+ & COMPATIBLES, AKAI  
**\$1000** & COMPATIBLES, & **SAMPLECELL!**  
AN INCREDIBLE SET OF SAMPLES OF THE BEST SYNTHS,  
INCLUDING MANY OF OUR TOP RATED SOUNDS FOR  
THE 01/W, M1, JV-80, WS, D-70, D-50, SY85, VINTAGE  
KEYS & MORE! SPECIAL: \$299., ALL FORMATS!

### JV-80 01/W SY85

**SuperDance** 81  
**PowerKeys** 82  
**Ultra Natural** 83  
**Supersynth** 84  
**Filmtexture** 85  
**SuperPop\*** 86  
**NewAge** 87  
**VintageCollection\*** 88  
ROM: 69.90 Disk: 44.90  
JV-1000 Disks: 44.90

### JD-990 X-3 05R

SEE OUR JV-80 & JD-800 BANKS!  
**JD-800**  
**Ultradance** 801  
**Wondersynth** 802  
**Supersound** 803  
**WonderMix** 804  
**SuperJupiter** 805  
**Filmtexture** 806  
ROM: 69.90 Disk: 44.90

### D-70 Wavestation

**PowerDance** 71  
**Natural** 72  
**Supersynth** 73  
**Soundscape** 74  
ROM: 69.90 Disk: 44.90

### D-50

**Dance NEW!** 511  
ROM: 69.90 Disk: 44.90  
TOP RATED! SEE REVIEWS BELOW!

### M1

**SuperDance** 51  
**SuperMSynth** 52  
**Filmtexture** 53  
**M1 Natural** 54  
ROM: 69.90 Disk: 44.90  
TOP RATED! SEE REVIEWS BELOW!

### Vintage Keys

**Analog Dance** 501  
**Filmtexture** 502  
Disks: 39.90

### PROGRAM DISKS: 39.90

**Dance** 851  
**Supersynth** 852  
**Filmtexture** 853  
256VCES/128PRFS EA!  
**SAMPLE DISKS:**  
WE HAVE 7 SYNTHS, 4  
PIANOS, 3MISC, 10DRUM  
SAMPLEDISKS! SEE RIGHT!  
**SYNTHS:** 39.90  
**PIANOS:** 29.90  
**OTHERS:** 29.90  
**DRUMS:** 19.90  
SYNTHS HAVE 512K SMPLS,  
64VCS+64PRGS, 10PIANOS  
HAVE 512K SMPLS + 24VCS,  
& DRUMS HAVE 1 SUPER KIT!

### K2000

**PROGRAMDISKS:** 34.90  
**Pop/Dance** 201  
**SuperKSynth** 202  
**SynthTexture** 203  
**Superscape** 204  
100 PROGRAMS EACH!  
**SAMPLE DISKS:**  
**SYNTHS:** 39.90  
**PIANOS:** 29.90  
**OTHERS:** 29.90  
**DRUMS:** 19.90  
SYNTHS HAVE 1.4MEGSSAMPLES+  
100PRGS, 10PIANOS+OTHERS  
HAVE 1.4MEGSSAMPLES+30PRGS,  
DRUMS HAVE 1 SPRKIT! SEE RIGHT!  
**SYNTH COLLECTIONS**  
69.90 EACH (8HD)!  
8HD DISK SETS OF SAMPLES FROM  
OUR SOUNDS FOR THE BEST SYNTHS!  
OVER 11 MEGS PER SET! SEE RIGHT!

### SC-55 TG100

**SuperDance** 551  
**SuperPop/Dance** 552  
**Ultradance** 553  
**Wondersynth** 554  
DISKS: 29.90  
MANY FORMATS!

### SY77

**Wonderscape** 771  
**Ultrasound** 772  
**Supersynth** 773  
**Heaven** 774  
DISKS: 39.90  
ROM: 79.90

### SY99 & DPM3: CALL!

### SAMPLE DISKS

#### HD DISKS

**ASR-10** 1800  
**\$1000** 1800  
**T-SERIES EX** 1990  
**PEAVEY SP** 1600  
**GM S28.53** 1990  
& COMPATIBLES!

#### SYNTHS

**SuperDance** 205861 920  
**SuperSynth** 205862 922  
**SuperPop** 205863 924  
**SuperJupiter** 205864 930  
**Pop/Dance** 205865 932  
**UltimatePop** 205866 934  
**AnalogSynths** 211867 936

#### PIANOS & MORE

**Piano 1** 225 870 941  
**Piano 2** 226 871 942  
**Piano Mix 1** 227 872 943  
**Piano Mix 2** 228 873 944  
**B3 Organs** 229 874 945  
**Acoustic Strings** 227 871 946  
**SynthVox & Choir** 226 872 944

#### DRUMS

**ElectronicDance** 1 901  
**ElectronicDance** 2 901  
**ElectronicDance** 3 901  
**808Dance** 902  
**909Dance** 902  
**SprRapKit** 1 903  
**SprRapKit** 2 903  
**HouseKit** 1 904  
**HouseKit** 2 904  
**HouseKit** 3 904

#### SYNTH COLLECTIONS!

7HD DISK SETS! SEE RIGHT!

#### DD DISKS

**EPS/16+** 1400  
**\$950** 1400  
**EPS** 1490  
**SY99** 1990  
**DPM3SE+** 1990  
& COMPATIBLES!

#### SYNTHS

**SuperDance 1** 920  
**SuperDance 2** 922  
**SuperSynth 1** 922  
**SuperSynth 2** 924  
**SuperPop 1** 924  
**SuperPop 2** 926  
**SuperJupiter 1** 926  
**SuperJupiter 2** 928  
**Pop/Dance 1** 932  
**Pop/Dance 2** 934  
**UltimatePop 1** 934  
**UltimatePop 2** 936  
**AnalogSynths 1** 936  
**AnalogSynths 2** 938

#### PIANOS & MORE

**Piano 1-5** 941  
**Piano Mix 1-5** 942  
**B3 Organs 1 & 2** 942  
**Acoustic Strings 1 & 2** 946  
**SynthVox** 944  
**Synth Choir** 944  
**EPs 1** 945

#### DRUMS

**10 GREAT KITS! SEE LEFT!**  
**SUPER SYNTH PACKS:**  
**SYNTHPACK (14)** 109.  
**DRUMPACK (10)** 99.  
**PIANOPACK (10)** 99.

#### SYNTH COLLECTIONS!

14DD DISK SETS! 69.90 EACH!

#### SAMPLE CD'S: CALL!

#### ASR-10

**\$1000**  
**K2000**  
**EPS 16+**  
**EPS**  
**\$950**

#### SYNTH COLLECTIONS

EACH COLLECTION CONTAINS  
OVER 11 MEGS OF HIGH  
QUALITY SAMPLES OF OUR  
SOUNDS FOR THE WORLD'S  
GREATEST SYNTHS. IN  
8-DISK SETS EA FOR THE  
K2000, 16-DISK SETS FOR THE  
EPS/16+ & \$950, AND  
7HD DISK SETS FOR THE  
ASR-10 & \$1000! OVER 11  
MEGS EACH OF HIGH QUALITY,  
MULTI-SAMPLED HITS, LEADS,  
PADS, BASSES & MUCH MORE!

#### 69.90 PER SET!

**01/W 01/W Collection 1** 660  
**01/W 01/W Collection 2** 661  
**VINTAGE Analog Dance 1** 662  
**KEYS Analog Dance 2** 663  
**M1 M1 Collection 1** 664  
**M1 M1 Collection 2** 665  
**SY85 SY85 Collection 1** 667  
**SY85 SY85 Collection 2** 668  
**JV-80 Super Dance** 61  
**JV-80 Super Pop** 66  
**D-50 D-50 Collection 1** 670  
**D-50 D-50 Collection 2** 671  
**D-70 D-70 Collection 1** 672  
**D-70 D-70 Collection 2** 673  
**WS AD Pop/Dance** 48  
**WS EX Spr Pop/Dnc** 46  
**WS EX Pop Collection** 47

#### NEW CD-ROMS!

SEE ABOVE!

### TOP REVIEWS:

#### A 5 STAR REVIEW OF OUR SY85 SOUNDS FROM KEYBOARD!

"There's plenty to like on Pro-Rec's Supersynth and Filmtexture disks for the SY85 (& their Dance collection takes top honors!)... The focus stays tight on Euro/techno and other electronic dance patches. Dance delivers what it promises - a comprehensive and frequently exciting arsenal of techno timbres. If dance grooves are your game, you won't need any other synthesizer sound source than this." **BANG FOR THE BUCK: 5 STARS!**

#### OUR M1 SOUNDS WERE TOP RATED IN KEYBOARD!...

**M1 SUPER DANCE:**  
"We love this card!... filled with edgy, grating, annoying and wonderfully inventive patches - just the thing for dance/industrial/rave/techno/house/techno... There are plenty of hot basses, fat pads, and percussive description - dawning whois to satisfy the most discriminating key pounder!"

#### SOME TOP COMMENTS FROM HOME & STUDIO RECORDING ON OUR K2000 LIBRARY:

"Useful, no-bull sounds that make no pretenses. These programs are a lot of fun to browse through and play."

#### MORE COMPLIMENTS FROM KORG CONNECTION ON OUR WHOLE LIBRARY

"The bottom line is these guys make great sounds. Many of Pro-Rec's sounds made it into my personal sound library and they're gonna stay there. What more can they say? Be sure to call us today!"

#### OUR WAVESTATION SOUNDS ARE TOP RATED BY KORG CONNECTION:

If you're looking for classic analog sounds mixed with today's bright digital stuff, these collections won't let you down... Mixing really old analog sounds with wave sequences... The EX Pop Collection & AD Pop/Dance banks rank somewhere between four and five stars (5 out of 5 is a perfect rating). If you're doing pop music, the AD Pop/Dance collection belongs in your Wavestation. There are deliciously same sounds in each bank that make it into my permanent collection. Pro-Rec continues to produce consistently excellent sound programming."

#### M1 NATURAL:

"Plenty of warm, beautiful sounds, suitable for atmospheric effect and new age tracks!"

### ORDERS: (212) 675-5606

### DEMOS: (212) 627-3148

106 W 13th Street Suite 13, New York, NY 10011

**Pro-Rec** ORDERS/INFO: (212) 675-5606 CALL FOR A FREE CATALOG  
DEMOS/FAX: (212) 627-3148

### 24-HOUR DEMOS OF OUR

### AWARD-WINNING SOUNDS BY

### PHONE! JUST CALL OUR DEMO

### LINE AT (212) 627-3148 ANYTIME!

**SHIPPING:** US Orders: \$2 1st Class Mail, \$3 UPS, \$12 Fed Ex. CODs \$12 UPS, \$15 FED EX. CANADA: \$3 Air Mail. INTERNATIONAL: \$6 Air Mail, \$18 Express Mail (2-3 Days) Anywhere in the world! UNLIMITED PRODUCTS! ALL ORDERS SHIPPED WITHIN 24 HRS!



# 25 HAMMOND LICKS YOU MUST KNOW

Give your thumb a rest while your other fingers are busily playing the lightning-fast repetitive blues riff of Example 2 (page 66). Example 3 (page 66) shows some harmonic

possibilities that are only available when you don't have to worry about note decay. Example 4 (page 66) is a high-note soul rave-up that might make Steve Winwood

Ex. 12. Classic gospel voicings. (See page 72.)

Drawbar setting 88 8000 008  
Fast Leslie



Ex. 13. You have heard this one before. (See page 72.)

Drawbar setting 88 8888 888  
Leslie starts fast

↓ Leslie set to slow

↓ Leslie min. speed



Ex. 14. Yes, you can arpeggiate those chords too. (See page 75.)

Drawbar setting 88 8473 256  
Slow Leslie



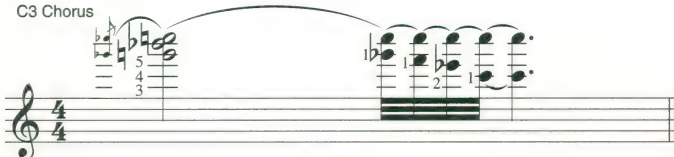
Ex. 15. This sounds best with maximum amp overdrive. (See page 75.)

Drawbar setting 88 8800 000  
2nd Harmonic percussion



Ex. 16. Finger slides work wonders. (See page 75.)

Drawbar setting 88 8473 256  
Slow Leslie  
C3 Chorus



Ex. 17. Can't think of what to play? Try this. (See page 75.)

Drawbar setting 88 8000 000  
3rd Harmonic percussion





# 25 HAMMOND LICKS YOU MUST KNOW

smile. Well, maybe not.

The organ keyboard has a quick, nearly non-weighted action that allows trills to be played easily. Example 5 (page 67) demonstrates a single-note trill à la Brian Auger. Example 6 (page 67) is not quite as soulful as something Booker T. would play, but you get the idea.

A player's strongest fingers are the first three. Fast riffs such as blues runs are optimally played using only these three fingers. Example 7 (page 67) also employs a useful technique

in which a single finger slides off an accidental key to a natural key, in this case  $A\flat$  to A. The key of F is the favorite of many jazz organists partially because of the speed in which these sorts of blues runs can be played.

Example 8 (page 67) sounds as if you started out playing a blues run but got sucked up by a space ship. This one could make for an interesting modulation.

Explore the outer extremities of good taste using Example 9 (page 67). If you really work at it, you can clutter up many types of music

Ex. 18. Instant prog rock. Don't add water. (See page 75.)

Drawbar setting 88 8800 000  
2nd Harmonic percussion

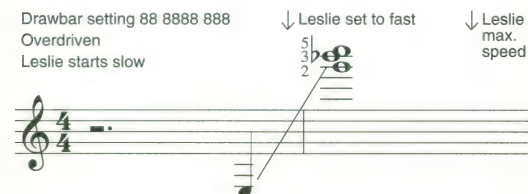


Ex. 19. If Example 18 didn't have enough notes for you, try this one. (See page 75.)

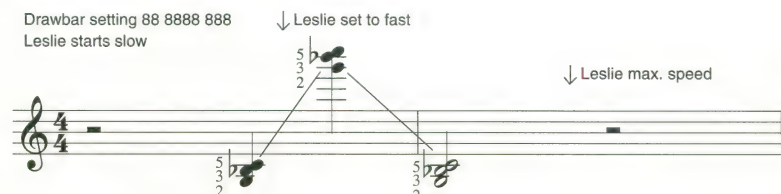
Drawbar setting 88 8800 000  
2nd Harmonic percussion



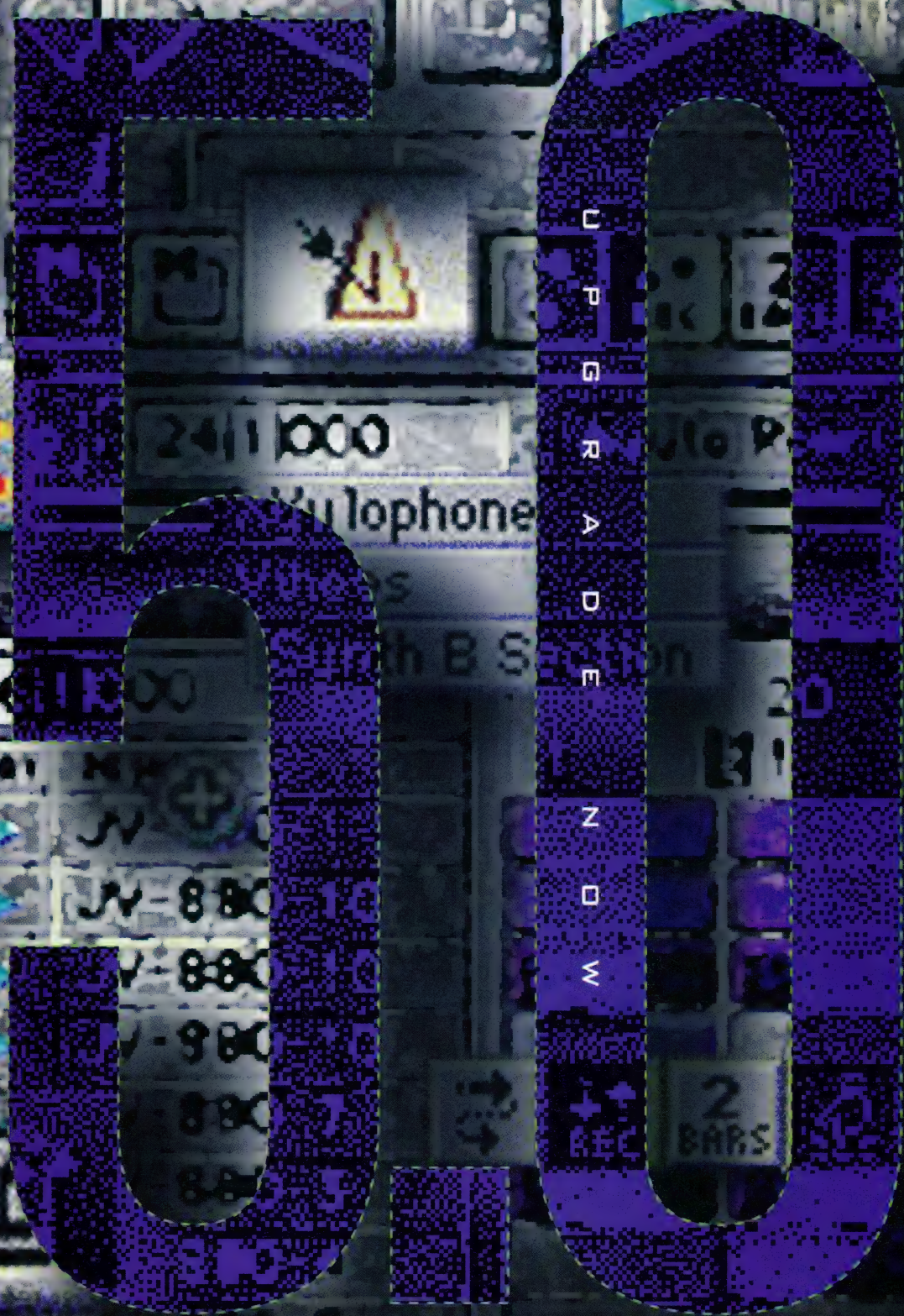
Ex. 20. Glissandos are a big part of the B-3 sound. (See page 75.)



Ex. 21. Chord glisses work well too. (See page 75.)







Performer 5. Sequencing Never Looked So Good.

Mark of the Unicorn, Inc. 1280 Massachusetts Avenue, Cambridge, Massachusetts 02138 Phone +1 617 576 2760 Fax +1 617 576 3609





# 25 HAMMOND LICKS YOU MUST KNOW

with fast whole-tone runs like this one.

Another benefit of electric organ actions is the fairly quick return time of the keys. This allows staccato riffs to be played using both hands in an overlapping manner. Example 10 (page 67) can also be played on another instrument with a quick key return, the Clavinet. Jon Lord of is one of the people who made this technique popular on the organ.

Even modern dance music has benefited from key slapping on a B-3. Example 11 (page 67) fits in music now as well as it did

in 1968. You will find it necessary to twist your left hand around backwards to play this example, so that both thumbs are on your left. Seriously.

Different chord voicings are used in playing the organ because the timbre of an organ is unique among the keyboard kindred. The 7th chord voicings in the next few examples are classic. Example 12 (page 69) is from the gospel world, but it works well outside of church too. Everyone has heard Example 13 (page 69). Hats off to Steve Winwood (hope he's smiling) for bringing this one to everyone's

Ex. 22. Make a grand entrance with a group of glissandos. (See page 75.)

Drawbar setting 88 8888 888  
Leslie starts slow

↓ Leslie set to fast  
↓ Leslie max. speed  
↓ Leslie set to slow  
↓ Leslie min. speed  
↓ Leslie set to fast  
↓ Leslie max. speed  
↓ Leslie set to slow  
↓ Leslie min. speed

L.H. R.H. L.H. R.H. L.H. R.H. L.H. R.H.

Ex. 23. If you're not in shape to operate heavy machinery, don't try this one. (See page 75.)

Drawbar setting 88 8888 888  
Leslie starts slow

↓ Leslie set to fast  
↓ Leslie max. speed

R.H. L.H.

Ex. 24. Left-hand jazz bass. Also, learn to cope with comping. (See page 75.)

Drawbar setting 83 8000 000  
C3 Chorus  
Swing eighths

Continued





It's nice to know an AKG studio standard isn't over anyone's head anymore.

Even among pros, there are times when your talent exceeds your budget. That's why we created the new AKG C3000. It has the warmth, clarity and character of the most popular AKG studio mic in the world — at about half the price. In fact, when you hear it you'll be amazed what a large, gold-coated diaphragm will do for your sound. The C3000 gives you all the quality of an AKG without having to pretend it's an AKG. It is.



*Bean, from D'Cuckoo, whose new "Umoja" CD is on RGB Records.*

**H** A Harman International Company  
AKG Acoustics, Inc. 1525 Alvarado St.  
San Leandro, CA 94577 USA  
Phone: 1 (510) 351-3500  
Fax: 1 (510) 351-0500

© 1993 AKG Acoustics, Inc.  
AKG is a registered trademark of  
AKG Acoustics, Inc.



SONY

## PLAY OUTSIDE THE LINES.



Forget what they told you in school. Go anywhere your creative impulses take you with Sony's HR Series Digital Signal Processors. A 48kHz sampling rate, 18-bit converters and twin A to D technology deliver superior sound resolution. And not since crayons has a creative tool been so easy to use right out of the box. Featuring 100 killer pre-sets. Or feel free to create your own. Guitar and multi-effects processor each **under \$700**, with an 8-pedal MIDI remote also available. To learn more about the HR Series Digital Signal Processors, just scribble this number anywhere you please, 800-635-SONY, ext. DSP.

INNOVATION AT WORK.

Sony Business and Professional Products Group, 3 Dragon Drive, Montvale, NJ 07645-1735. © 1993 Sony Electronics Inc. Reproduction in whole or in part without written permission is prohibited. All rights reserved. Sony is a trademark of Sony.



# 25 HAMMOND LICKS YOU MUST KNOW

attention by being a man, yes he (am?). Yes put a new twist on the old 7th chord riff by arpeggiating it. Example 14 (page 69) shows you can teach an old dog new licks. Example 15 (page 69): Parallel fourths or fifths can be a heavy sound indeed. Buzz with the fuzz by overdriving your amplifier until you're arrested.

Example 16 (page 69): A maximum num-

ber of notes played with the minimum effort. Sliding from note to note is one way to clean dust off the keys.

Example 17 (page 69) will enable the player to do a lot of damage to perfectly good music. It works well in the key of C when you can't think of anything else to play.

Turn nearly any song into progressive rock by playing Example 18 (page 70). I'm not sure it matters where it's played in the context of the song. Example 19 (page 70) is an arpeggiated version of Example 18. If Example 18 didn't sound like you were playing too many notes, this one certainly will.

Glissandos played on the organ have been a staple of the rock world for many years. There is no single proper way to play a glissando on the organ. Using the palm of your hand creates a heavier sound than just using the side of your thumb. If your keyboard has overhanging keys, be careful when playing the next examples not to catch the flap of skin between your thumb and index finger between the keys (ouch!).

A simple introduction into a world of gliss is Example 20 (page 70). Start down low and smear the notes up to a C7 sans 3rd. Hand injury danger factor 5.0. Try playing a C7 down low on the keyboard, sliding up to a high C7, and then sliding back down again, being careful to bring all the notes up and down evenly. Example 21 (page 70) has a hand injury danger factor of 6.0. Example 22 (page 72) uses both hands to make a grand entrance into a little 7th chord ditty. Hand injury danger factor 9.5. Only play Example 23 (page 72) when completely sober. Hand injury danger factor 9.9.

Last and probably most important is the genre of jazz organ. Try Example 24 (page 72) to get acquainted with playing left-hand bass. This riff also provides a work-out for your expression or volume pedal and right-hand comping. Thanks to Joey DeFrancesco for the enlightenment.

Let's finish off with a popular Jimmy-Smith-inspired jazz fill (Example 25). After all, this is all his fault. ■

Ex. 24. (Continued)

Ex. 25. The classic jazz fill.

Drawbar setting 88 8000 000  
3rd Harmonic percussion  
C3 Chorus



## LETTERS

Continued from page 6

any universal patch standard will be too restrictive. Standard MIDI Files work because the language is simple: note-on, note-off, etc. But synthesizers have to deal with the manipulation of sound, which is more complex and subjective. Though I admire Salani's attempt to define a standard, I think he is searching for a level of compatibility that doesn't make sense to professional synthesists.

Daniel J. Barrett  
Dept. of Computer Science  
University of Massachusetts  
Amherst, MA

### Lounge Survivors

As a recent escapee from L.A.'s lounge piano wilderness, I can attest that the saloon piano scene there is much more wild than Jill Alison Canon would have us believe ["One More for the Road," Feb. '94]. For instance, many L.A. solo pianists, male and female, socialize with their audience members, including *Playboy* models, celebrities, and foreign royalty. Tips come in many forms, including \$1,000 checks. And folks like Billy Joel, Brian Wilson, and Dudley Moore often drop in to play a few tunes. Where else but in L.A.?

Unfortunately, the L.A. lounge scene is a dog-eat-dog world, in which good pianists must compete ferociously with players who are willing to work below scale. It is also a place where

beastly agents and entertainment "consultants" snare hotel gigs by cutting deals with management and swindling musicians out of fair wages, hours, and benefits in exchange for a percentage of the pianists' measly non-employee compensation. Thanks to the absence of collective bargaining, many talented artists are being eaten alive.

Yet, tough as it is, these gigs can be a stepping stone to bigger and better things, such as recording, film composing, arranging, and conducting. Many excellent musicians have worked the L.A. lounge circuit, including Nat King Cole, Roger Williams, and Michael Feinstein. And, despite the odds against survival, many continue to do so today.

John Sawoski  
Beverly Hills, CA

I have frequently played in the situations described by Jill Alison Canon. The twisted title one patron gave for "Unforgettable" was especially amusing, so I thought I'd share some of the gems I've encountered in L.A. lounge-land. Such as the gentleman who requested "Chicago," which I immediately played: "Chicago, that toddling town. . . ." "No!" he interrupted. "The other 'Chicago.'" Thought I, "He must mean, 'My Kind of Town.'" "No!" he repeated, and then he sang, "On the south side of Chicago," the opening line to "Bad, Bad Leroy Brown." Then there was the inebriated fellow who wanted "The Bullfrog Song." "Sorry, I don't know it. I can do 'The Chicken Dance' and 'The

Bunny Hop,' but . . ." "Sure you know it! 'Jeremiah was a bullfrog,'" a.k.a., "Joy to the World." And who can forget the lady who requested "Jack's Back in Town," which turned out to be "Mack the Knife."

But my favorite twisted title was related to me by a sax-playing colleague. One patron asked in all seriousness for "Dead Ant." After repeatedly being told that the band didn't know it, he sang, "Dead Ant . . . Dead Ant . . . Dead Ant Dead Ant Dead Ant Dead Ant *Dead Aaaaaant*" — the theme from *The Pink Panther*.

Erik Ekstrand  
N. Hollywood, CA

### The Analog Backlash

The inane and wimpy anti-analog blatherings of Cliff Suttle and Alvin Sneezeeweze [Letters, Feb. '94] expose them as the usual type of amateurs who think they know best. Fact is, analog and digital have pros and cons. There never has been a synth that covers all the bases. Even Roland admitted the shortcomings of the JD-800.

Yes, the days of the Moog, the CP-70, and the B-3 are past. But for purists like me, their sound will live as long as I do. Show me any synth with a patch that sounds like Billy Preston on "Space Race," and I'll buy it.

Peter Vaczovsky  
Traverse City, MI

Cliff Suttle seems to be so caught up in today's cool multi-megabyte ROM samples that

### Sequencing

Performer  
Vision  
Cubase  
Cakewalk  
Metro  
Mastertracks Pro  
Notator Logic  
Musicator  
Drummer

### MIDI Editors

Galaxy  
Unisyn  
EditOne  
MAX

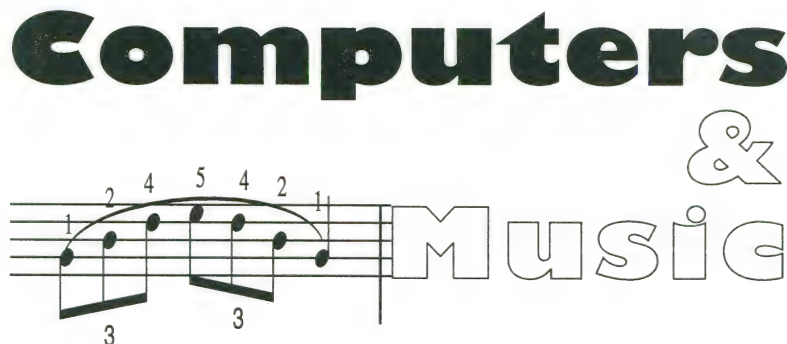
### Notation

Nightingale  
MIDISCAN  
Mosaic  
Musicshop  
Music Printer Plus  
Finale  
Encore  
Musictime  
Allegro

### Educational

Song Works  
Rhythm Ace  
Play it by Ear  
Note Play  
Listen  
Practica Musica  
Music Lessons  
Jazz Improvisation

Are you confused about MIDI and music software?



We aren't.

1-800-767-6161

### Digital Recording

Audiomedia II  
Sound Tools II  
Session 8  
NuMedia  
Samplecell II  
Digital Performer  
Cubase Audio  
Studiovision  
Deck  
DINR  
Infinity  
Time Bandit  
Turbosynth  
Hyperprism

### MIDI Interfaces

Translator  
PC MIDI Card  
MIDI Time Piece  
Studio 2-3-4-5  
MIDI Express  
MQX  
Midiator  
Dual Port SE

### General MIDI

Emu SoundEngine  
Roland SC7  
Roland Rap 10  
Roland SCC1  
Roland SC33  
General MIDI Files  
Band in a Box  
Jammer Pro  
Pianist  
Guitarist

647 Mission St  
San Francisco  
CA 94105

Send for our 88 page Catalog

Serving Performers, Educators,  
Composers, Programmers,  
and Sound Designers since 1982



**PG Music  
announces...**

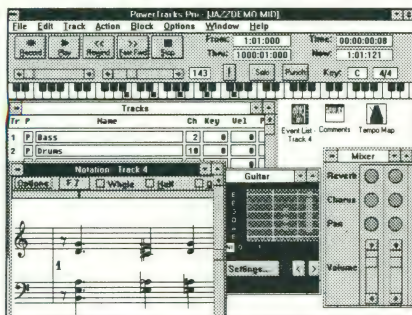
# PowerTracks Pro™ ...at the incredible price of \$29

SEQUENCER/NOTATION/PRINTING FOR WINDOWS (IBM)

**"Solid sequencing at an unbelievable price"** Electronic Musician - Sept. 93 **NEW! Music Printout**

PowerTracks is a professional, fully featured MIDI sequencing/notation/printing program, and is so easy to use! And we include versions for Windows 3.1 AND DOS so you'll be able to use PowerTracks on all of your machines!

## PowerTracks Pro 2.1 for Windows



### POWERTRACKS FOR DOS VERSION INCLUDED FREE

Yes! We include the DOS version for free in the same package.

**NOTE:** The DOS version doesn't support music notation, or other graphical features.

EXISTING POWERTRACKS USERS CAN UPGRADE TO  
POWERTRACKS PRO 2.1 FOR ONLY \$10

**For your PC Soundcard or MIDI system  
All for the amazing price of...**

+ \$5.00 Shipping & Handling per order (\$10 outside USA/Canada)

**30 DAY Unconditional MBG**

**FOR STARTERS...** PowerTracks has all the Pro features found in sequencers costing hundreds of \$\$ more.

**PRO RECORDING, PLAYBACK, SYNCH, EDIT & SYS-EX OPTIONS:** 48 tracks, real/step/punch record, sound-on-sound, MIDI File support, sync (SMPTE, MIDI time Code, MIDI) edit (quantize/cut/copy/paste/undo/data filters/transpose), multi-port support, 480 ppq timebase, sys-ex-editor-librarian, patch names, banks & much more.

**MUSIC NOTATION:** Enter/edit/display music in standard music notation. Intelligent/automatic features such as: correct beaming/tying of notes/minimize rests option/ "Jazz eighth notes" option (this automatically allows jazz swing eighth notes & triplets to be notated properly!). Reads in any MIDI file & displays it as notation!!

**MUSIC PRINTOUT (ON ANY PRINTER!):** Print any track in standard music notation. Selectable staves per page and bars per line. Selectable margins and paper size. Portrait or landscape (sideways) printing. Titles, composer, style, copyright information. Make your own lead sheets!! You can also print the piano roll window for even more detailed analysis of a track!

**DELUXE WINDOWS INTERFACE:** Multiple Windows - Staff Roll, Event List, Tracks, Bars, Meter, Tempo, Piano keyboard, Guitar fretboard.

**BUT POWERTRACKS GOES MUCH FURTHER... WITH EXCITING NEW FEATURES NOT FOUND IN OTHER SEQUENCERS!**

**THE FASTEST WAY TO ENTER NOTES ONTO A MUSIC STAFF!** Using our intelligent AutoDuration™ feature, you can enter music onto a music staff using one mouse click per note - including the duration!!

**COMPREHENSIVE SUPPORT FOR GUITAR (STEP/REALTIME RECORD, PLAYBACK & DISPLAY OF GUITAR MUSIC):** PowerTracks has an on-screen Guitar fretboard. This allows you to quickly input/display Guitar music by simply clicking on the fretboard in step time. Or record the Guitar music in real time from a MIDI keyboard, or Guitar controller. Either way PowerTracks can display the track for you exactly as it should be played on guitar!! Comes with pro guitar files ready to play. Learn to play guitar by watching the guitar on-screen!

**BUILT-IN EDITOR /MIXER FOR ROLAND SOUND CANVAS/SCC1 & OTHER GENERAL MIDI PRODUCTS:** This allows you to control the features on your Roland card-(pan, reverb, chorus, etc.) even edit the sounds. All while the music is playing!! Uses on-screen knobs & sliders Save synth setups to disk.

**ON SCREEN PIANO, GUITAR & MUSIC STAFF SHOWS THE NOTES IN COLOR AS THEY ARE BEING PLAYED:** You see the notes drawn on the piano keyboard, the guitar fretboard & highlighted in red on the music staff as the song is playing.

**...AND POWERTRACKS COMES WITH PRO QUALITY MIDI FILES READY TO PLAY:** We include MIDI files of pro musicians playing piano, guitar & combo tracks.

**REQUIREMENTS:** PowerTracks for Windows - Windows 3.1, IBM Compatible AT, 386 or higher, 2mb RAM. Supports any device compatible with Windows 3.1 including Roland MPU401, Music Quest MQX interfaces, Key Electronics MIDIATOR, SoundBlaster, AdLib, TurtleBeach, etc.

**PowerTracks for DOS -** DOS 3.3 or higher, 640K, XT/286/386 or better. MIDI interface (Roland MPU401, Music Quest MQX series, SoundBlaster MIDI and FM sounds, Midiator, Roland SC7, Yamaha TG100) or AdLib/SoundBlaster compatible sound card.

**From PG Music...** The makers of The Jazz Guitarist, Band-in-a-Box, PowerTracks, The Pianist

☎ Phone orders: 1-800-268-6272 or 1-905-528-2368 VISA/MC/AMEX/cheque/mo/po# Fax 1-905-628-2541

**PG Music Inc.** 266 Elmwood Avenue Suite 111 Buffalo NY 14222

## PG Music announces... The Jazz Pianist™

**An Exciting New Music Program for Windows, Macintosh & Atari!**

**This software makes it "too easy" to learn to be a great jazz pianist.**

We've recorded top jazz/studio pianists playing 60 jazz standards in a wide variety of styles. On-screen piano keyboard shows you exactly what the pianist is playing on the piano. Slow down the piece or step through it chord by chord. Learn the music "note for note" by watching the piano notes on screen. Load the MIDI files into your favorite programs for further study.

**PLUS...** Music Trivia Game, "Guess the Song", Program Notes, Biographies, Music Dictionary (all on disk).... and much more.



For your  
PC Soundcard or  
MIDI system

**Requirements:** Macintosh 2mb RAM memory, system 6 or 7, MIDI interface + synthesizer/module with piano sound.

**Windows (IBM)** 2mb RAM memory, Windows 3.1, SoundCard (Roland, SoundBlaster, etc.) or MIDI system with piano sound, 3.5" or 5.25" high density Floppy Disk.

**Atari** 1040 ST/TT/Falcon or color. Floppy disk. MIDI sound module with piano sound, mono or color.

All the pieces have been recorded "in real time" by top jazz / studio pianists on an 88 note weighted MIDI piano keyboard. They are never quantized or step recorded. All are complete artistic performances professionally performed, recorded and saved as standard MIDI files. You'll hear the music playing with CD-quality through your sound card or MIDI system, just as if the pianist was in your home.

### COVERING A WIDE VARIETY OF PIANO STYLES

Solo virtuoso piano performances in "Art Tatum" or "Errol Garner" style, or simpler arrangements in "Cocktail" style. Lush ballad arrangements ("Bill Evans" style). Trio arrangements in modern jazz styles. We've covered all the bases!

### SPECIAL SUPPORT FOR ROLAND GS OR GENERAL MIDI MODULES

Sound Canvas/SCC1 or other General MIDI modules can use the built in mixer to change volumes/pitches/panning/reverb/chorus/ tuning. Also supports non-General MIDI interfaces with drum kits for over 40 synths built in!

### OVER 60 TOP JAZZ STANDARDS WITH COMPLETE JAZZ PIANO ARRANGEMENTS

### LISTEN TO THE MUSIC WHILE YOU WORK IN OTHER PROGRAMS

Playback continues in the background of other programs so you can listen to your favorite music while you work.

### YOU CAN ALSO USE THE PIECES IN YOUR OTHER MUSIC PROGRAMS OR FOR YOUR PRESENTATIONS

Since the pieces are saved as Standard MIDI files, you can use these fabulous performances in your other music programs or as background music for presentations, etc.

### USE YOUR EXISTING SOUND CARD OR MIDI SYNTHESIZER

Plays the music back through your existing MIDI synthesizer, digital piano or sound module. Windows users can playback through their SoundCard (Roland, SoundBlaster, etc.)

**IBM-DOS USERS OR HARDWARE SEQUENCER USERS CAN STILL PLAY THE STANDARD MIDI FILES WITH THEIR DOS OR HARDWARE SEQUENCER (READING DOS DISKS)**

**All for the amazing price of...**

**30 DAY Unconditional MBG**

**\$49**

+ \$5 S/H  
\$10 outside  
USA/Canada

**From PG Music**

☎ Phone orders: 1-800-268-6272 or 1-905-528-2368 VISA/MC/AMEX/cheque/mo/po# Fax 1-905-628-2541

**PG Music Inc.** 266 Elmwood Avenue Suite 111 Buffalo NY 14222



FROM MICS AND MULTITRACKS  
TO THE LATEST MIDI EQUIPMENT

# WE KNOW OUR STUFF!

BEFORE YOU BUY  
CALL US!



DON'T MAKE  
A BIG MISTAKE  
PICK UP THE PHONE AND  
TALK TO THE  
EXPERTS



SWEETWATER SOUND HAS  
EVERYTHING TO MAKE YOUR  
DREAM STUDIO A REALITY

**Our exclusive guarantee:**  
**If you don't like it, we'll take**  
**it back — with no hassles!**

NO SALES TAX (except IN)  
VISA • MasterCard • Discover  
AMEX • COD • Trades

**Sweetwater**  
SOUND INC.®

**(219) 432-8176**

5335 BASS ROAD • FT. WAYNE, IN 46808  
FAX (219) 432-1758

## LETTERS

he has lost sight of the techniques and skills that are so important to one's overall sound. Maybe he should put down his JD-800 manual and pick up a book on improvisational techniques.

Like vintage cars and antique furniture, analog synths bring out a sense of personal attachment among their owners. Is it so wrong for us to reminisce for a while? Or are we so stuck on a one-way superhighway toward the future that we'd be uncool to take an occasional look back?

Suttle should mind his own business and leave us alone.

Jon Tucker  
Rochester, NY

I was shocked at Suttle's lack of respect for musicians who choose to play vintage instruments. There's no right or wrong when it comes to music. Suttle should realize that opinions, not fact, govern our choices in music, so saying that one opinion is right or wrong is egotistical. Suttle should quit grousing about his experiences with analog, stop paying attention to trends, give up on insulting other musicians, and get on with his own music.

Paul Dickow  
Moscow, ID

Cliff Suttle refers to the Rhodes electric piano as an "abortion instrument that we only played because we didn't have the manpower to carry around a real piano." Suttle should have left

out the word "we." I've been schlepping a Rhodes around for 15 years. It has a beautiful sound, and it's a lot of fun to play. Just ask Ray Charles, Donald Fagen, Michael McDonald, or Stevie Wonder. Better yet, turn to page 74 in the very issue in which Suttle's diatribe appears. *Voilà!* Chick Corea's setup now consists of an acoustic piano and — you guessed it! — a Rhodes electric piano.

One keyboardist's abortion instrument may be another one's baby.

Mark Faraglia  
San Carlos, CA

I have to agree with Cliff Suttle. Back in those "thrilling days of yesteryear," people hoped that the kind of equipment we now have would some day materialize. Well, it's here. But now it's "get a horse" time too. I'm 60 years old, and I've never had an outlook of "older is better." Never will!

Richard Millette  
Englewood, OH

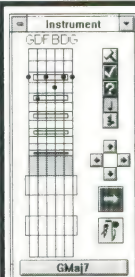
## Sound Canvas

In the wake of your excellent Hot Tips article on beating your Roland Sound Canvas to death [Feb. '94], your readers may be interested in some utilities I have developed for the beast. I have a collection of 75 scale temperaments for the Canvas, which are available as either 16 .ALL files for Dr. T's Omega II sequencer or

*Continued on page 126*

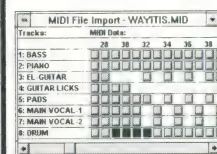
## Power Chords Pro

The ultimate in sequencing software.



Record anything played  
on the on-screen

instruments. Interpret as  
melodies, drum parts, chord parts, or  
even chord progressions. Or record from  
MIDI in. Drag'n drop phrases right into  
your song.



Graphic import  
from MIDI or  
Power Chords  
files make  
'clip-music' a  
reality. Just  
audition, drag  
and drop.

Create professional quality music faster than ever with Power Chords Pro. Its unique object oriented nature makes music a visual experience. Give your music the human touch with exciting **Power Effects**. Create up, down or alternating strums, drum rolls, arpeggiations etc. at the click of a button. Powerful graphic editing of parts means no more MIDI data number crunching. Cut, copy, paste, transpose and re-orchestrate with a few mouse clicks.

The ability to pick and choose from imported parts, and to audition any chord, drum or music part at any time encourages creativity and experimentation. **Flexibility and speed are at the heart of Power Chords Pro.**

To order, call or fax with VISA number and  
expiry date or send check or money order.  
**Funds must be drawn in US dollars.**

Power Chords Pro:	\$199.95
upgrade from 1.0:	\$ 75.00
upgrade from 1.1:	\$ 60.00
Power Chords 1.1:	\$ 99.95
1000 Super Cool	
Drum Patterns	\$ 49.95
Mr. Drumstix' Music	
Studio:	\$ 69.95



Free Demo  
Disk  
Available

## Howling Dog Systems

Kanata North P.O. Box 72071  
Kanata, ON, Canada K2K 2P4  
Tel: (613) 599-7927 Fax: (613) 599-7926  
CompuServe 71333,2166 GO HOWLING

**UltraSound Patch Sets** - Megabytes of  
patches now available in 3 disk sets -  
\$29.95 US ea. Call or write for details!





76 Keys  
64 Voices  
16 Meg of ROM  
Onboard Effects  
ADAT<sup>®</sup> Compatible  
**QUADRASYNTH<sup>™</sup>**  
The Sound of Alesis. At last.

128 factory presets, 128 user programs, QS Composite Synthesis<sup>™</sup>, QS Parallel/Matrix Effects<sup>™</sup> with 4 independent busses, a PCM-CIA ROM card slot, intelligent user interface, multiple independent zones, velocity, aftertouch and direct digital recording to ADAT make the QuadraSynth the most powerful keyboard you can own. The Dream Studio<sup>™</sup> is coming together. Don't need the keys? The S4<sup>™</sup> Sound Module is coming soon. Call 1-800-5-ALESIS. See your Authorized Alesis dealer. All trademarks are property of Alesis Corporation. © Alesis and ADAT are registered trademarks of Alesis Corporation.

Alesis Corporation 3630 Holdrege Avenue Los Angeles CA 90016





# Best of Guitar Player



## VINTAGE GALLERY - APRIL 1994

The follow-up to the hot-selling *Vintage Guitar Gallery*. This issue is packed with more stunning photographs of vintage instruments, Steve Howe's guitar collection and a Selmer guitar history. 64 pages.



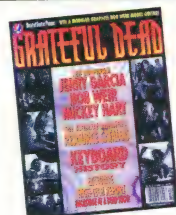
## VAN HALEN

Due to the tremendous response to the May 1993 *Guitar Player* Eddie Van Halen cover story, the *Best of Guitar Player* brings you this comprehensive Van Halen issue—featuring unpublished interviews, lessons, and song transcriptions. 104 pages.



## GUITAR GEAR

Over 130 guitars, amps, and signal processors are reviewed in this special edition from the pages of *Guitar Player* magazine. *Guitar Gear* shows you how to evaluate and choose the products that will provide you with years of satisfaction. 96 pages.



## GRATEFUL DEAD

This special edition takes you into the world of the Grateful Dead. Including new interviews with Garcia, Weir, and Hart, the Dead's keyboardists, a photographic look at the guitars of Garcia, Weir, and Lesh, a Deadhead resource guide, and more. 88 pages.



## ZAPPA

A profile of the most important composer to emerge from pop music in our generation. This special edition takes you inside Joe's Garage and the inner workings of Barking Pumpkin Records. Plus, interviews with Frank and the entire Zappa family. 104 pages.



## VINTAGE GALLERY - 1993

Beautiful full-color photographs and historical information on some of the most rare and finely crafted guitars ever made. Plus, a Vintage Guitar Bibliography to help you learn more about vintage guitars and collecting them. 64 pages.



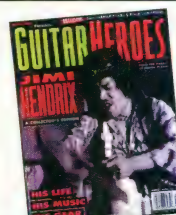
## CLAPTON

The legend of Slowhand rages on in this special edition. Complete with 5 classic interviews, including the never-before-published 1968 "Lost Cream Interview." Plus, complete song transcriptions of "Politician" and "Walkin' Blues." 104 pages.



## COUNTRY

Profiles of the guitar-playing trendsetters, sidekicks, and stars who've made country music what it is today...Vince Gill, Merle Travis, Chet Atkins, Clarence White, Albert Lee, Waylon Jennings, and more. 104 pages.



## GUITAR HEROES

This issue is devoted to the most influential rock guitarist ever... Jimi Hendrix. Get an in-depth look into Jimi's equipment, playing techniques, and music. 88 pages.



## AXGRINDER

From the pages of *Guitar Player* come interviews with the kings of power guitar. From Metallica, Anthrax, Soundgarden, Nirvana, and Pearl Jam to Black Sabbath, AC/DC, Kiss, and Deep Purple. 80 pages.

## • ORDER INFORMATION •

To order, just fill out this order form indicating your selections, and send it with your payment to:  
**GPI Special Editions, P.O. Box 105448, Atlanta, GA 30348-5448.**

Qty	Title	Price each	Tax ea.*	U.S. Shipping & Handling ea.	Canadian Shipping & Handling ea.	Foreign Shipping & Handling ea.	Total
	VINTAGE GUITAR GALLERY-4/94	\$7.00		Free	\$2.00	\$3.00	
	GUITAR HEROES	\$7.00		Free	\$2.00	\$3.00	
	ZAPPA	\$7.00		Free	\$2.00	\$3.00	
	AXGRINDER	\$7.00		Free	\$2.00	\$3.00	
	CLAPTON	\$7.00		Free	\$2.00	\$3.00	
	VINTAGE GUITAR GALLERY-93	\$7.00		Free	\$2.00	\$3.00	
	COUNTRY	\$7.00		Free	\$2.00	\$3.00	
	GRATEFUL DEAD	\$7.00		Free	\$2.00	\$3.00	
	GUITAR GEAR	\$7.00		Free	\$2.00	\$3.00	
	VAN HALEN	\$7.00		Free	\$2.00	\$3.00	

\* CA, GA, MA, and NY residents must include applicable sales tax

Total Enclosed: \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

☐ Check/Money Order Enclosed ☐ VISA ☐ MasterCard

Card# \_\_\_\_\_

Expire Date \_\_\_\_\_

Signature \_\_\_\_\_

Please allow 4-6 weeks for delivery. All non-U.S. orders payable in U.S. dollars by VISA, MasterCard, or International Money Order only.

SEKMO



# KEYBOARD®

YAMAHA  
*Clavinova*®

# GIVEAWAY!

- ☐ **YES**, enter me in the *Keyboard/Yamaha Clavinova Giveaway*, and start/renew my subscription to *Keyboard* right away! I get **2 YEARS FOR THE PRICE OF ONE**, 24 monthly issues for only \$29.95. That's a savings of 69% off the cover price!
- ☐ No, I don't want to (or already do) subscribe to *Keyboard*, just enter my name in the Giveaway.

☐ Bill Me

☐ Payment Enclosed

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Price good in U.S. only. \*Canada/Mexico/International surface mail add \$30. International air mail add \$80. All non-U.S. orders must be prepaid in U.S. funds by International Money Order only. Please allow up to six weeks for delivery of first issue. Giveaway entries must be received by June 30, 1994. \*Canadian GST included - Permit #124513540.



---

---

---



PLACE  
STAMP  
HERE

# KEYBOARD®

Yamaha Clavinova Giveaway  
P.O. Box 50405  
Boulder, CO 80322-0405





# A YAMAHA CLP-123 CLAVINOVA DIGITAL PIANO!

**VOTED "BEST  
PIANO SOUND"  
& "BEST  
ACTION" IN  
THE 1993  
KEYBOARD  
DIGITAL PIANO  
SHOOT OUT**



Mail in the official entry form for your chance to win a Yamaha CLP-123 Clavinova (a \$3,945 value). Here's what Yamaha has to say about their award-winning keyboard: "Packed with the features that make Clavinovas the world's favorite digital piano, the CLP-123 is the perfect partner for your artisty. At the heart of the dazzling sound is high-resolution AWM Advanced Wave Memory . . .

[including] stereo-sampled piano, harpsichord, and organ voices. The AE weighted keyboard offers the satisfying feel and response that players the world over love, and there's 32-note polyphony (16-note polyphony for stereo-sampled voices). What's more, all of this performance is packaged in beautiful wooden cabinetry for the ultimate look and sound."

## OFFICIAL GIVEAWAY RULES

To enter: Print your name and address on the entry form or a facsimile. Enter as often as you wish, but each entry must be postmarked separately. All entries for the Keyboard/Yamaha Clavinova Giveaway must be received by June 30, 1994.

Entrants to the Keyboard/Yamaha Clavinova Giveaway need not subscribe to Keyboard. The winner will be drawn at random and will be notified by mail. The prize is non-transferable and no substitution is allowed other than made necessary due to availability by the manufacturer. Should this occur, a replacement prize of like or greater value will be provided.

The winner may be required to sign and return (within 30 days of notification) an affidavit of compliance with these rules and a release for the use of his or her name for publicity purposes without further consideration. This offer is void where prohibited by law, and is subject to all applicable federal, state, and local regulations. Taxes are the sole responsibility of the winner.

The Keyboard/Yamaha Clavinova Giveaway is not open to employees of Yamaha or Miller Freeman, Inc. Odds of winning depend on the number of entries received.

The rules and conditions of the Keyboard/Yamaha Clavinova Giveaway may be changed without prior notice. Miller Freeman, Inc. shall be deemed sole interpreter of the rules and conditions.

☐ **YES**, enter me in the Keyboard/Yamaha Clavinova Giveaway, and start/renew my subscription to Keyboard right away! I get **TWO YEARS FOR THE PRICE OF ONE**, 24 monthly issues for only \$29.95. That's a savings of 69% off the cover price!

☐ No, I don't want to (or already do) subscribe to Keyboard. Just enter my name in the Giveaway.

☐ Bill me. ☐ Payment enclosed.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Price good in U.S. only. \*Canada/Mexico/International surface mail add \$30. International air mail add \$80. All non-U.S. orders must be prepaid in U.S. funds by International Money Order only. Please allow up to six weeks for delivery of first issue. GIVEAWAY ENTRIES MUST BE RECEIVED BY JUNE 30, 1994. \*Canadian GST included — permit # 124513540.

Mail to: Keyboard/Yamaha Clavinova Giveaway, P.O. Box 50405, Boulder, CO 80322-0405

84EC3



# VINTAGE SYNTHS

# ROLAND CR-78 TR-808 & TR-909

## CLASSIC BEAT BOXES

**D**uring the '60s, two entities that we in the electronic music industry take for granted today didn't yet exist: programmable, computerized drum machines and Roland. The development of both came about thanks to one person.

Back then, Roland president Ikutaro Kakehashi ran Ace Electronics, a manufacturer of organs, amplifiers, and rhythm machines. "Maybe you remember the Rhythm Ace," Kakehashi reminisces. "That was my first design. I managed Ace Electronics and that's when I developed the Rhythm Ace R-1, which I introduced two or three years ago [*kidding*], probably in 1964. It was sold in the U.S. through a wholesaler. It wasn't automatic, it was a hand-operated machine that attached to an organ. This was a golden time for the home organ business. Later, around 1967, we made the Rhythm Ace FR-1, which was

### BY MARK VAIL

the first automatic rhythm machine."

Home organ players latched onto the automatic rhythm concept long before *real* musicians considered it kosher. (Just teasing, folks.) "Almost all home organs had built-in rhythm sections," Kakehashi recalls. "A stand-alone rhythm machine wouldn't sell at first. Gradually, people started to use them for recording purposes, just to improve their timing. Then musicians began to understand how useful they were, and they finally spread to the music industry market within a period of three to five years."

Meanwhile, Kakehashi had founded another music instrument company, which he opened in April 1972. His initial concern was its name. "Everybody identifies certain

companies in the music industry by a letter from the alphabet: 'F' means Fender, 'S' means Steinway, 'Y' means Yamaha, 'K' means Kawai. I was looking for another letter from the alphabet that nobody else was using. I chose 'R.' Then I looked for the best name in places like telephone and history books. Eventually I found 'Roland.'

"Another thing that was important to me, this name must be pronounced the same in any country. In Germany, Spain, France, Japan, English-speaking countries, they all must pronounce it 'Roland.'" Kakehashi may have been sensitive about the pronunciation because his first company's name, which was known in Australia as Ace-Tone, was pronounced "Ice-Ton" and "Acid-Tone" by those native to the Land Down Under.

Rhythm machines were among Roland's first products. The TR-33 was followed by relatively obscure devices like the TR-55,



-66, -77, -330, and -700 — though not necessarily in numerical order. (See the Chronology of Roland Rhythm Machines chart on page 84.) All of these machines had one thing in common: Their rhythmic patterns were preset.

**Enter the CPU.** By the late '70s, microprocessors began appearing in music instruments. The most notable example was the Sequential Circuits Prophet-5, which made its public debut at the January 1978 NAMM show in Anaheim, California (see *Vintage Synths*, Feb. '90). Ikutaro Kakehashi realized that a CPU could be a beneficial addition to the drum machine and made it so with Roland's seventh rhythm machine. "The CR-78 was the first rhythm machine with a microcomputer," he says. "At that time, the only choice we had for a CPU was between the 6502 and the Intel 80 series. I chose the Intel 8048, because the 6502 was difficult to get in Japan."

"The CR-78 was also programmable. By tapping, you could create a new pattern. You could combine a preset pattern with one that you had created yourself."

Although it wasn't the first programmable drum machine — an honor held by Paia's Programmable Drum Set, a kit that first appeared in 1975 — the CR-78 is indeed the first rhythm machine that we know of that featured a microprocessor. The Paia machine used TTL circuitry, not a CPU chip. (See *Vintage Synths* in the Sept. '93 *Keyboard* for more on Paia's line of electronic music kits.)



*After it went out of production, Roland's TR-808 became the fave percussion source for hip-hop and techno musicians. Should Roland bring it back?*

According to the CR-78 brochure, you programmed a two-bar pattern one voice at a time, and user patterns could sound up to four of the CR-78's ten percussion

voices. You could break each measure up into 8, 12, 16, 24, or 48 divisions. Percussion events were entered using either the standard TS-1 Memory Write Switch or the

## VITAL STATISTICS

**Descriptions:** The CR-78 CompuRhythm was the first drum machine with a microprocessor, and qualifies as one of the first programmable electronic rhythm machines. Step-time programmability was one of the TR-808's claims to fame, along with its distinguished analog sound. The TR-909 was a hybrid of analog and digital circuits; other than PCM samples of hi-hat and ride and crash cymbals, all of its sounds were created via analog.

**Production Dates:** CR-78, 1978-81. TR-808, 1980-83. TR-909, 1983-84.

**Manufacturer:** Roland Corporation, Osaka, Japan.

**Approximate Numbers Made:** CR-78, 8,000. TR-808, 12,000. TR-909, 10,000.

**Original Retail Prices:** CR-78, ¥105,000 in Japan; \$850 in the U.S. TR-808, ¥150,000 in Japan; \$1,195 in the U.S. TR-909, ¥189,000 in Japan;

\$1,195 in the U.S.

**Current Estimated Values:** CR-78, \$50 to \$100 on the street, \$150 to \$350 from a dealer. TR-808, \$350 to \$500 on the street, \$600 to \$750 from a dealer (\$800 in Europe). TR-909, \$250 to \$400 on the street, \$450 to \$700 from a dealer (\$1,000 in Europe).

**Insider Information:** Roland Corporation began operating in April 1972 in Osaka, Japan. Their first products included rhythm machines, amplifiers, effect pedals, and synthesizers. Roland's first synth, the SH-1000, came out in 1973. . . . While it's obvious that the CR in CR-78 referred to "CompuRhythm," you may wonder what the TR in TR-808 and TR-909 stands for. According to Roland president Ikutaro Kakehashi, it means "Transistor Rhythm."



# ROLAND BEAT BOXES

optional WS-1 programming switch, which allowed the tempo to be slowed down for entry of complex patterns. Battery-backed memory retained user patterns when the machine was turned off. The four voices in a

preset pattern could be independently muted using front-panel buttons. An outboard sequencer could be synchronized to the CR-78 thanks to the latter's trigger output, which sent a 0-15V signal.

This at-the-time unique instrument also allowed user-controlled accents on specific beats. "I built many rhythm machines previously," Kakehashi reveals, "but none of them had accents. Rhythm with no accents?

Unbelievable! Nobody would buy it. Also, you could adjust the volume level of some of the voices. In previous rhythm machines, all the voices were fixed at a certain amplitude, and you couldn't change the feeling. On the CR-78, you could adjust the volume level of a percussion part such as a cymbal or the maracas."

In addition, the CR-78 offered a rare feature for a drum machine: It could fade rhythm patterns in and out. Separate switches for fade-in and -out allowed three different fade settings: long, short, or off. When you started a pattern with fade-in enabled, the volume would rise from nothing at a rate determined by the tempo. Likewise, when you hit the stop button with fade-out enabled, rather than stopping immediately the pattern would fade away.

International stars like Peter Gabriel and Phil Collins helped the CR-78's image in the music industry. However, the CR-78 was nowhere near as popular as its successor, the TR-808.

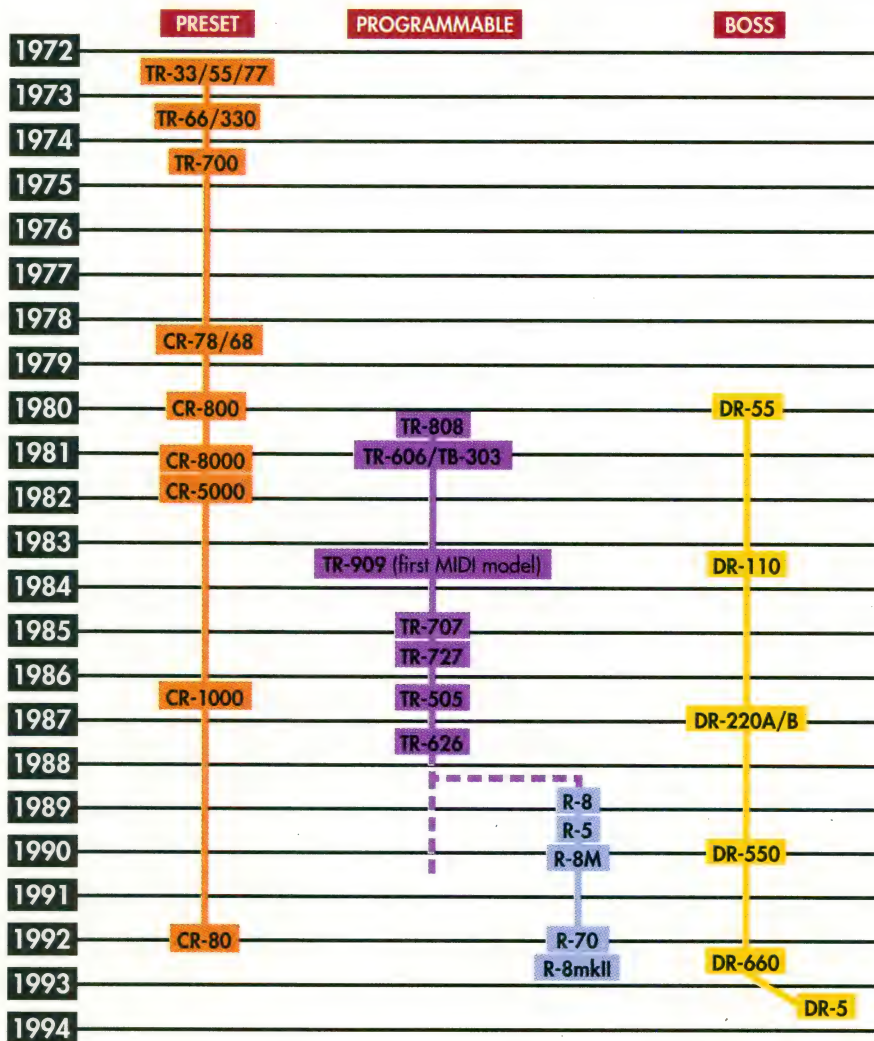
**The Hip-Hop/Techno Rhythm Machine of Choice.** Although the response was far from immediate, Roland's second programmable drum machine caused the biggest splash on the music scene — long after it had gone out of production. The TR-808 became so popular in hip-hop and techno that you can find renditions or imitations of its sound in all kinds of contemporary sample libraries and synth sound sets. Hip-hop and techno gave the TR-808 a new reputation and life.

Although the 808 still created sound using analog circuits, its sound quality was much improved over that of the CR-78. Five percussion sounds characterize the state of the 808: the hum kick, the ticky snare, the tishy hi-hats (open and closed), and the spacy cowbell. Low, mid, and high toms, congas, a rim shot, claves, a handclap, maracas, and cymbal fill out the 808's sonic complement. The accent function — integral, as Kakehashi pointed out, in making the automatic rhythm machine musically useful — survived the transition from the CR-78 to the new machine.

What else was new? Thanks to its front-panel layout, which included a graphic design to help the user visualize metric divisions of a pattern's measures, the TR-808 was easier to program. In addition, it allowed step programming of patterns. "The step-writing interface wasn't so new," Kakehashi says, "but it was the first time that we paid more attention to the people who program in real time. It used to be that our customer was the

## CHRONOLOGY OF ROLAND RHYTHM MACHINES

*This chronology shows the evolution of the Roland and Boss drum machine lines. Although you can program patterns on the CR-78, it appears under the preset column because its patterns can only be selected manually and can't be strung together to create an entire song. As you can see, products weren't introduced in a numerical order; higher numbers were used to delineate higher priced models. Whereas the R-8 and its relatives branch off from the programmable TR line, the last of the latter models — the TR-626 — went out of production in 1990. The Boss DR-5 is separated from other Boss machines because it offers a full range of instrument sounds — besides drums and percussion — and has a built-in four-track sequencer.*





Roland's CR-78 CompuRhythm was the first programmable drum machine with a built-in microprocessor. (Paia's Programmable Drum Set, which came out in 1975, used transistor-transistor-logic circuits.)

home-organ player. Then people in the music industry started to pay attention to our rhythm machines. Such a musician was agreeable to programming by himself. That's why we developed the step-writing system, so that you could slow the tempo down, enter your rhythm events, and then speed it up and hear the realistic rhythm pattern that you had just created."

Besides its improved sound and programmability, the 808 incorporated a number of groundbreaking features, including volume knobs for each voice, multiple audio outputs, and the immediate precursor to MIDI. On the rear of the 808 — as well as other 1981-vintage, pre-MIDI Roland rhythm machines (the CR-8000 and TR-606), the TB-303 Bass Line, and the EP-6060 electronic piano (which featured an arpeggiator) — you'll find a five-pin DIN jack that a standard MIDI plug will fit into. MIDI, however, it isn't. Although this connector was for synchronizing devices, Mr. Kakehashi asserts

that there is a reason for the similarity between this and MIDI connectors.

"We had developed our own communi-

cations protocol," he explains. "Inside, it was the same as today's MIDI. At the same time, Sequential Circuits was developing a MIDI-like protocol. We called ours the DCB Bus, they called theirs by another name. Then we started discussing how to develop a common standard. Eventually MIDI came out, but actually more than 80 or 90% of it was based on the DCB Bus. Of course, I don't want to say that everything was developed by Roland, because that isn't fair. It was a joint effort. Both companies agreed to implement the best ideas from both companies, so we jointly created MIDI. But when you compare it with the DCB Bus, you can see how similar they are."

Just as many people would love to see the Ford Motor Company remanufacture the '57 T-bird, there are those who speculate that, were Roland to make more TR-808s, the analog beat box would outsell all of its digital competitors.

**Hybridicity & Abbreviated Longevity.** At approximately the same time that Ikutaro Kakehashi foresaw the value of implanting

*Both analog and digital sound generation techniques — as well as MIDI — were incorporated into the TR-909, which replaced the all-analog, pre-MIDI TR-808. By the time the 909 was unleashed in 1983, the Linn LM-1 — whose drum sounds were all sampled — had attracted most of the buyers in the drum machine market.*





# ROLAND BEAT BOXES

a microprocessor in a rhythm machine, Roger Linn began developing the Linn LM-1, which — upon its release in 1980 — qualified as the first programmable drum machine that featured sampled sounds. (See *Vintage Synths*, Sept. '90.) Kakehashi wasn't prepared to abandon the use of analog sound generation in his rhythm instruments, even by the time the TR-909 was introduced in 1983. However, three of the 909's 11 percussion sounds — crash cymbal, ride cymbal, and hi-hat — were sampled. How long was the drum machine in production? A single year.

"We combined technologies to make a hybrid machine," he explains. "The cymbal in the TR-909 was generated using digital technology, but the kick drum, snare, and other parts were made by analog circuits. We felt that was the best combination, but at that time everyone expected all sounds to be generated digitally. Digital had a better sound quality, and everybody liked to have all digital. Roger Linn developed his drum machine, which generated all of its drum sounds dig-

itally. At that time, everyone wanted PCM, so that's why we couldn't continue to manufacture the TR-909. It was replaced in 1984 by a machine called the TR-707, which had all PCM sounds." Besides being notable for its hybrid sound-generation scheme, the 909 deserves credit for being Roland's first rhythm machine with MIDI.

Besides sporting three MIDI connectors (not the familiar in, out, and thru, but one MIDI in and two outs), the 909 also featured a DIN connector for synchronizing the machine with older Roland gear.

An improvement on the accents concept was also incorporated into the 909. Not only could you accent percussive events that occurred on a particular beat, you could independently accent any sound. And by triggering 909 sounds from a MIDI controller, you could get a wider dynamic range.

**Who Deserves Credit?** Makoto Muroi, Chief Engineer of Roland's electronic drum and percussion division, provided the following information: Mr. Nakamura designed the analog voice circuits for both the CR-78 and TR-808. Mr. Tamada, who also designed Roland's MC-8 MicroComposer (see *Vintage Synths*, Oct. '90), developed the CR-78's software. Mr. Matsuoka developed the TR-808's

software. Mr. Oue designed the TR-909's analog and PCM voice circuits, and Mr. Hoshiai developed its software.

However, Ikutaro Kakehashi prefers to give credit to design teams rather than singling out individuals. "Many people were engaged. The Japanese system takes teamwork, so there wasn't one person who was responsible. I think the concept to use a microcomputer was my idea, but the real development involved two or three people. Some people worked on the voicing, some people worked on the mechanical design. There wasn't just one person. This is quite different from the U.S. system. In the U.S., very clearly, 'I designed everything' is what many people say. But in Japan, no. So it's very difficult to say who did what. But it's very clear that Mr. Tadao Kikumoto designed the TR-909's hybrid concept. I think on the TR-808 as well. The concept and programming and hardware design were, in many cases, performed by different people." ■

*Thanks to Sean Denton of the Starving Musician in Santa Clara, California, for the loan of the CR-78, TR-808, and TR-909 for our photo shoot.*

## Ace Music

C E N T E R



**Serving Musicians Since 1952**

■ **Miami**   ■ **Ft. Lauderdale**   ■ **Orlando**  
 ■ **Drum City** ■ **West Palm**

**1-800-446-4ACE**

**FAX: (305) 893-7934**

**Toll Free Sales  
and Support**

**No Grief**

**30 Day Money  
Back Guarantee**

**Free UPS Delivery**

**No Sales Tax  
Except in FL**

- Keyboards
- Recording
- Software
- PA
- Lighting
- Guitars
- Amps
- Basses
- Band Instruments

VISA, MasterCard, Amer. Exp., Diners Club, Carte Blanche, Discover.





*American Innovation Continues*



*"the ultimate analog synthesizer"*

Continuing the tradition of innovation which began over 20 years ago with the introduction of the Synthesizer Expansion Module in 1973, the classic OB-1 in 1978 and the Matrix 12 in 1985 - **Oberheim** is introducing the **OBMx** - the ultimate analog synthesizer. The **OBMx** incorporates twenty years of development with modern components and MIDI capability while maintaining the traditional analog audio path. The true analog nature of the audio path makes possible the creation of the rich, warm and fat quality sounds **Oberheim** is famous for - *the "classic" Oberheim.*



**Oberheim**

A Division of Gibson Guitar

2230 Livingston Street • Oakland • California • 94606

**800 - 279 - 4346**

Distributed World Wide by Consolidated Musical Instruments



You're a professional. You want it all.  
At Emagic, we deliver. And it won't  
cost You a fortune.

## LOGIC AUDIO 2.0

Emagic's unique object-oriented.  
Audio-MIDI recording system will get  
more performance out of your Macin-  
tosh™ computer and Digidesign™ -  
hardware than any other system of its  
kind. Period.

# Playground for Professionals.

LOGIC AUDIO 2.0 gives you the widest  
range of »power-user« features available  
anywhere.

The interactive window technology  
allows you to fully customize LOGIC's  
screen sets to fit your personal work-  
style.

Record, arrange and edit your digital  
audio tracks with sample accuracy  
using the built-in Stereo Source  
Sample Editor.

Open the doors to the Digital Factory™  
and step into the Time Machine™ for  
ultra-fast time expansion/compression  
and classic style pitch shifting. Rev up  
the Groove Machine™ to create MIDI  
groove templates from your audio  
tracks and even quantize and Re-  
Groove™ your audio recordings while  
you listen.

You can graphically create pan and  
volume moves in the Hyper Editor, and  
intergrated Quicktime™ support  
allows you to »scrub« Audio/MIDI  
tracks and video simultaneously.

LOGIC AUDIO 2.0 - the professional  
solution at an affordable price. See  
your Emagic dealer today and test the  
best!

LOGIC AUDIO, Digital Factory™, Time Machine™, Groove Machine™  
and Re-Groove™ are trademarks of Emagic GmbH.  
All other trademarks are property of their respective manufacturers.

DEALER CONTACT: Thinkware, voice 415-7779876, fax 415-7772972  
CANADA: Musicware, voice 416-7853311, fax 416-7856416  
CUSTOMER CONTACT: EMAGIC Inc., 24hr info 916-4771051, fax 916-4771052  
Westcoast Product support: voice 415-7381633, fax 415-7381668  
Eastcoast Product support: voice 416-9448444, fax 416-9441150



# EMAGIC

...we make computers groove











# NAMM '94: ON SOLID GROUND

RECESSION AND QUAKES BE  
DAMNED — MUSICAL EQUIP-  
MENT MANUFACTURERS  
DEMONSTRATE RENEWED  
STRENGTH AND VISION

NEXT-GENERATION  
SYNTHESIZERS  
SOFTWARE INNOVATIONS  
MULTIMEDIA  
BREAKOUTS  
ANALOG UPRISINGS

BY MICHAEL MARANS

**A**re you okay? How about your house? Your office?" The litany of questions became an all-too-familiar conversation opener for attendees of last January's National Association of Music Merchants convention. Only a few days before the show, Los Angeles — a 45-minute car ride away from the convention's Anaheim venue — was rocked by a killer earthquake. Many of the convention-goers live and work in L.A. or, worse yet, in the San Fernando Valley, the quake's epicenter. Fortunately, none of our industry acquaintances were injured, though frazzled nerves were in abundant supply. Still, the answers to the questions weren't always happy ones. A number of people had their

ILLUSTRATION: MARTIN MAYO



# NAMM '94: ON SOLID GROUND

homes and businesses seriously knocked about. Others suffered only minor damage, but were living without water or power. And the lucky ones who were spared the economic and emotional turmoil that comes with rebuilding one's life now had plenty of time

to ponder the destruction of the city's highway system. In a town already noted for night-marish traffic, the added insult seemed almost comical — only no one was laughing.

The closure of major highways raised immediate logistical problems for a number of musical equipment manufacturers: how to get their equipment trucks through to the Convention Center? Drivers managed to find alternate routes, but attendance at the show was down — partly because of the difficulties



At long last, the brainwave-to-MIDI-link is here, courtesy of the WaveRider from WaveAccess. (Just be sure to think only pure thoughts — nobody likes dirty-minded music.)



Sampling, sample-playback, sequencing, digital effects, and an 88-note keyboard: the Peavey PCX 688.

in getting there, and partly because a number of people had an aversion to placing themselves in the reigning aftershock capital of the world. (Wimps. Obviously those folks weren't from California.)

Even the plans of our own Jim Aikin were foiled. Not being much one for travel, Jim was to make his first appearance at a NAMM show in seven years. "It would take a major earth-

## STAR SPOTS & SUCK THREADS

### LIVE PERFORMANCE HIGHLIGHTS FROM NAMM

**T**hink of the five best concerts you've ever seen. No, make it ten. Got it? Now, imagine that you could hear all of those killer shows over a space of two or three days, all within walking distance of each other. In each one, you're only a few feet away from the artists. Not only that, they're all happy to talk to you after they've finished. In fact, that's what they're paid to do.

A dream, right? Nope. It's NAMM, the hottest concert ticket of the year.

The aisles here are a cacophonous maze, with artists you'd pay top dollar to see wailing away in booth after booth. If you're able to finagle an invitation, you can hear even more at many of the after-hours parties sponsored by exhibitors. After three days of this, you're ready for detox; it may be weeks before you can hear another Eddie Van Halen lick or *bubba-da-bubba-da* drum solo without going catatonic. But before burnout sets in, the demo and concert sprint at NAMM can jolt like raw adrenaline.

For keyboard junkies, here was plenty of action at this year's convention. Some of it was on the arena floor, some in the exhibitor booths, and some in hotel suites. (Hey! We're talking *music*, now! Well, okay. Music and shmoozing. But that's it. We were, after all, on assignment.) Here are some of the highlights:

- **Alan Pasqua.** If you remember Alan mainly from his days with

Giant, you might not recognize him now. Tidily dressed in suit and tie, long hair trimmed to corporate standards, he's a reformed ex-rocker and a born-again jazzier. Or so it seemed at his appearances for **Yamaha**. Backed by bassist John Patitucci and drummer Peter Erskine, Pasqua demoed the VL1 and the P500 digital piano in sizzling, straight-ahead jazz sets. Thanks to Alan, and to most of the celebrity demonstrators at NAMM, for keeping commentary to a minimum and letting the instruments speak for themselves.

- **Jordan Rudess.** Looking much more the rocker, from waterfalling locks down to red high-tops, Rudess turned in astonishing performances at the **Kurzweil** exhibit. Accompanied by **Chris Martirano**, the company's director of professional product development, Jordan tore it up on "Over the Edge," a metrical minefield inspired by Yes. At one demo, they got all the way to the last section when a MIDI glitch triggered a drum sequence from another song. The duo stopped, reset their K2000s, and did the whole piece again, even better than the first time. The drum part was, in fact, the only sequence in the piece; Rudess played everything live, including devilish sequence-like left-hand parts.

- **Greg Phillinganes.** Even with Keith Emerson signing autographs nearby, Greg drew attentive fans to his solo sets at **Korg**. Seated behind an i2 and an X3, he blew through several original tunes. The high point for us was a ballad, "If I Ever Lose My Faith," on which



quake to keep me from going," he chirped as we strolled down the hall at *Keyboard Central*. Gads! You don't suppose. . . ?

Apparently, a renewed vigor in enforcement of security also limited the number of extraneous persons attending the show. Time was, if you'd ever visited a music store you could somehow wangle a NAMM badge. This year, the security guards were going so far as to check business cards against badge names and question "questionable" characters. We did notice a conspicuous absence of excess Spandex, so apparently the guards were successful in their appointed task. On the other hand, big hair, NAMMettes, and snakeskin

One of the major buzzes of the show could be found at the Yamaha booth: the top-of-the-Clavinova-line P-500 digital piano.



boots have been staples at the convention for a long, long time. We missed 'em. Maybe the security won't be so strict in Las Vegas — the proposed site for future winter NAMMs. If the

show moves there, it's more likely that people in business suits will be barred.

The gathering itself was business as usual. Miles and miles of keyboards, software, mixing consoles, digital recorders, kazooes, guitar straps, tubas, and cymbals. Buttons, banners, 3-D glasses, T-shirts, door prizes, and demo after demo after demo. Food (bad food). Beer (bad beer). But what really makes NAMM so palatable is the noise level inside the convention center. Imagine 300 drummers pounding on cymbals at the same time that 522 heavy metal guitar players are pumping



Roland's JV-series synths feature expandability via add-on voice- and wave-form-expansion boards. Pictured here, the JV-90.

Phillinganes followed his own soulful vocals with a long vamp solo on a hard piano sound from the X3. (For the record, Phillinganes staked out a middle ground between the Pasqua and Rudess fashion extremes, with a blazing purple tux jacket over a black turtleneck. Very smart, Greg.)

• **Joey De Francesco.** Ah, but the king of the jazz organ renaissance took top honors in the threads department, with an extremely snappy double-breasted sharkskin suit. ("Whaddya want?" he shrugged. "I'm Italian!") Planted behind an XC-3 at the **Hammond-Suzuki** exhibit, Joey D. turned in the hardest-swinging set at NAMM, with his steady foot bass providing the foundation for electrifying interplay with his guitarist and drummer. Most impressive: a version of Monk's "Evidence" that hit Mach One tempos and nearly demolished the sound booth.

• **D'Cückoo.** Electronic world music was on the menu at a late-night bash thrown by **E-mu**. The female percussion quartet, with several other women sitting in, pounded exuberant polyrhythms on their custom-built controllers — MIDled, of course, to E-mu modules. Though infused with a freewheeling spirit, their music is actually tightly bound to choreographed visuals, which range from flailing mallets to synchronized dance steps. Few acts at NAMM could match D'Cückoo in rhythmic intensity or sheer endurance.

• **Otmaro.** Lost in a sea of bass players at the jam-packed fifth anniversary celebration for our sister publication *Bass Player* was one extraordinary young keyboardist. This Venezuelan dynamo, still in his mid-20s, unfurled fiery salsa lines in intricate, two-handed patterns as a member of bassist **John Peña's** band. Otmaro gets a lot of credit for pushing the Latin groove on this set, since Peña's regular drummer, Alex Acuña, couldn't make the gig, and the sub was sitting in without

rehearsal. What really knocked us out, though, was the fact that Otmaro was working with unfamiliar sounds on a borrowed keyboard. Look out for this guy.

• **Michael Feinstein.** As the definitive lounge entertainer, Feinstein faced an unusual dilemma. He was the featured act at a party sponsored by **Roland**, which was strange enough. What derailed him, however, was a lyric by Irving Berlin. While playing and crooning through "I Love a Piano," Feinstein stopped short at the line, "I love a Steinway," shrugged helplessly, and asked his guests, "What do I sing now? I'm a Baldwin artist!" Uh, find a rhyme for "Roland"?

• **Stevie Wonder.** Spotting Stevie Wonder has long been a favorite sport for NAMM veterans. Though he never plays scheduled sets anywhere, he shows up just about every year to cruise the booths and turn heads. This year, unobtrusively shrouded in a neon green African-style robe, he floated over to a few keyboards at **Roland**, **Yamaha**, and **Alesis**, and treated gawking onlookers to some amazing playing, from classical repertoire to out-there jazz. As if that wasn't news enough, we also caught him improvising words and melodies at a couple of karaoke booths.

• **Jordan Rudess Again.** After the convention center closes each afternoon at six, the sunken bar area at the Anaheim Marriott turns into a musical equivalent of the La Brea Tar Pits, as delegates tromp wearily into a swamp of drinks and munchies. You never now who is going to fight through this herd, settle onto the bench at the Yamaha Disklavier, and blow. We caught Jordan in action there one night, in a trio improvisation with **Jerry Kovarsky of Ensoniq** and consultant **Gerry Bassermann**, formerly of E-mu. Whether playing musical chairs or joining forces in six-hand display, they blew away even those cynics who thought they had heard it all.

—Robert L. Doerschuk



# NAMM '94: ON SOLID GROUND

the amp stacks up to 11. Now toss in 768 pitchpersons making sales presentations in voices loud enough to compete with the aforementioned musical attackers. A vision of Hell? Could be. After all, only Lucifer him-



Peavey's Spectrum Filter brings you the analog sound — without the fuss and bother of an analog synth. You supply the waves, the filter does the rest.

## PIANOS: GRAND DESIGNS

### HEAVY ACTION ON THE ACOUSTIC FRONT

**T**his year, most of the acoustic piano activity at NAMM was on the fringes — the extreme low end, high end, reproducers, and so on. An important exception was **Yamaha**, who introduced more new models at this show than they have in years. Their model A1 is a tiny 4'10" grand with all the features present in their G series. It has a surprisingly smooth transition from tenor to bass for a piano of this size.

Also from Yamaha, the MP100 is a 48" U1F upright that plays exactly like a normal acoustic piano when the middle pedal is in the up position. But when the pedal is locked down, the acoustic piano is "disconnected" by a bar that prevents the hammers from striking the strings; this transforms the U1F into a sampled grand. I was impressed with the sampled sound and with the feel of the action which, strangely, seemed unaffected by the disconnection. The electronic piano has 32-note polyphony and comes with headphone and MIDI jacks.

Yamaha's S line — grands built and voiced to standards usually associated with high-end pianos — has been expanded to include the 6'1" model S6. It joins the 6'3" model S4, formerly the S400. And the M300 and M400 console lines are being replaced this spring by the 44" M500 line, which offers a new scale design (one inch taller) and much smarter-looking furniture in two levels of cabinet sophistication.

Competition heats up in the market for electronic reproducing pianos with the entrance of Pianomation MIDI by **QRS Music Rolls**. QRS is recording a substantial portion of its huge library of music rolls onto compact discs. The left CD track carries a compressed audio version of the MIDI signal, which is uncompressed and translated into digital information by Pianomation's AMI (analog-to-MIDI interface) technology before being sent to the piano for playback. The right CD track carries an actual audio signal, such as a live instrumental or vocal recording, that plays simultaneously on a stereo system. The compressed MIDI signal can also be recorded on the audio track of a standard VHS videotape so that video images, such as lyrics or a pianist's hands, can be shown in sync with the reproducing piano playback. The MIDI signal can also be transmitted to the piano by radio waves, which allows users to control selections from far away without wires or cables. Although QRS maintains that AMI technology is proprietary, their com-

petitors at **PianoDisc** disagree and showed what appeared to be a similar technology.

(Interesting side note: QRS recently bought Story & Clark/Classic Player Piano Corp., appropriate not only because of the music roll connection but because Melville Clark of Story & Clark founded QRS in 1900!)

Encouraged by alleged improvements in the U.S. economy (and apparently oblivious to the precipitous decline in U.S. piano sales), many manufacturers new to the American market were present at NAMM, especially those from China and former states of the Soviet Union. The post-Soviet pianos, from Russia, Ukraine, and Belarus, go under such names as **Bechner**, **J. Becker**, **Wieler**, and **Baldorr & Sons**. They vary quite a bit in quality, but most are in sore need of improvement. The Chinese pianos, on the other hand, once the laughingstock of the show, are startlingly improved; there were even some grands. New names at the show included **J. & C. Fischer** and **Kranich & Bach**, made in Beijing under contract to **Wurlitzer** and **Baldwin**; **Nordiska**, from **Dongbei** ("Northeast") **Piano Co.**, with brand name and manufacturing equipment provided by a now-defunct Swedish company; and **Sagenhaft**, made by Dongbei for the **Weber Piano Co.**

On the high end, Italian maker **Paolo Fazioli** stole the show with his fabulous grands. **Grotrian** showed its grands, with their unique and lovely voice, off-site. **Steinway**, also off-site, exhibited its "Crown Jewel Collection" — regular Steinway grands clothed in East Indian Rosewood, Bird's Eye Maple, Kewazinga Bubinga, and seven other beautiful, exotic veneers. **Charles Walter** introduced his much-awaited 6'4" grand, which is still in need of a little tweaking.

Other notables at the show: **Kemble**, a large British firm that makes Yamaha pianos for the European market, in addition to its own brand; **Fritz Dobbert**, made by a Brazilian company; **Rieger-Kloss**, from the Czech Republic; and **Ibach**, the high-end German maker whose company was largely bought out by Daewoo, formerly maker of Sojin pianos, and whose equipment, processes, and pianos are now, they say, being faithfully duplicated in Korea.

—Larry Fine

Larry Fine, a registered piano technician, is author of *The Piano Book: Buying & Owning a New or Used Piano* (Brookside Press).





**When is a Roland Sound Canvas not a Sound Canvas? When it has 64-note polyphony. Then it's called a Super Sound Canvas.**

self would be evil enough to put so many karaoke booths under one roof.

## SYNTHS, SOUND MODULES, & ASSORTED NOISEMAKERS

Without question, **Yamaha** was creating a major buzz at the show with the VL1, their first synthesizer based on physical modeling technology. (See "The Next Big Thing" in the February '94 issue of *Keyboard* for a detailed examination of the technology behind the VL1.) Apart from the great sounds that were being coaxed from it by demonstrators Scott Plunkett, Avery Burdette, and Phil Clendennin, onlookers were impressed with its new \$4,995 price tag — a cool thou less than originally announced. Another new Yamaha instrument was also making waves (sorry), especially among the multimedia set for which it was designed. The sample-playback-based TG300 (\$895) features 456 preset sounds including nine drum kits, General MIDI compatibility, 32-note polyphony, 16-part multitimbral operation, programmable filters, digital effects, and a built-in computer/MIDI interface. Need an all-in-one production unit? Check out the QY300 (\$1,295), which combines a 28-note polyphonic TG-type synthesis engine with a 16-track sequencer, on-board signal processing, and a 3.5" disk drive.

The company also introduced two new models in their portable keyboard line. The



**A cool program gets cooler: Emagic's Notator Logic now supports digital audio.**



**Kurzweil's combination digital piano and MIDI master controller, the PC88.**

PSR2700 (each have 28-note polyphony, 128 sampled voices (instruments), a 61-note velocity-sensitive keyboard, 36 music styles, ten auto-harmony modes, and a built-in 3.5" disk drive. The PSR2700 also features the ability to sam-

ple. Sampling in a consumer keyboard?! What's the world coming to?

The **Digidesign** booth was filled to the brim with third-party developers (see "Plug-

## THE MOST, LEAST, BEST, & WORST OF SHOW

### THE BEST...

**Best Unprepared Piano:** Gerry Bassermann's impromptu inside-the-piano banging and strumming after-hours performance at the Marriott bar. So Gerry, was that a jig or a reel you were doing?

**Best Deadpan Delivery.** At his company's gala press party, E-mu General Manager Tom McLaughlin remarked to us over a glass of champagne that they were about to roll back the room's dividing wall and hold an honest-to-goodness press conference. *Very funny, Tom.* And then they did it.

**Best Shrimp:** Located at the far end of Digidesign's expansive, extensive (and, no doubt, expensive) buffet table. Enough of the tender morsels were on hand for all to satisfy their hunger — but did you guys really have to let all those other press geeks in?

**Most Incredible Marketing.** Ensoniq Marketing Director Jerry Kovarsky got regular coverage for his company's products in the daily NAMM newspaper. Jerry himself got treated to elegant dinners, complete with fine wines. The incredible part? Ensoniq wasn't exhibiting at the show. (Sounds to us like a raise may be in order.)

**Most Appreciated Attendee:** The "divine" Greg Mackie. While standing in line for a D'Cückoo performance, Greg was approached by a customer who expressed his apparent satisfaction with Mackie products through the following simple sentiment: "You are God."

### AND THE WORST...

**(Not) Proud To Be An American:** In one American manufacturer's videotaped presentation, a bomb was dropped on Japan. We guess it was supposed to be a joke — except that it wasn't funny. At all.

**Most Self-Indulgent:** An all-too-great number of player/demonstrators whose egos far outweighed their musical abilities. Repeat after us: Fast riffs played for hours on end are not music. Fast riffs played for hours. . . .

**Gawdawfullest Concoction:** Emagic makes great music software, but they should leave bartending to the experts. The last time we drank something blue it was ink. (It really didn't taste too bad. Of course, we were only two years old at the time.)

**Worst Repeat Offender:** This year, again, the overinflated and underdressed Gemini girls were doing their very best to demonstrate the finer points of whateverthehellitis their company makes. To the guys lined up to have their pictures taken with the silicone queens: This is the '90s. *Get a grip.*

**Worst Rock 'n' Roll Show:** Uncontested champion: the Northridge quake.

—Michael Marans



# NAMM '94: ON SOLID GROUND

in Mania" on page 99) all touting their latest wares. But believe it or not, a new Digidesign product was actually on hand as well: SampleCell II for Windows/PC (\$1,495, RAM not

included). The PC version of the sample-playback system will offer many of the same features as the Mac version, including dynamic digital filtering and eight polyphonic outputs. Each SampleCell II card can support up to 32Mb of standard Mac II 4Mb RAM.

Kurzweil unveiled the PC88, a combination digital piano and MIDI master controller. The sound set contains 48 presets, including



The Roland MT-120S combines a sequencer and sound module in a beach-ready boom box. (Protective sand cover available in a variety of neon shades.)



Analog devotees have a new idol to worship, the Stage Electronics Mini, created by some of the same folks who brought you the original Minimoog.

grand piano, Rhodes, Clavinet, FM electric piano, Hammond organ, and orchestral strings samples. Built-in effects include chorus, reverb, and delay. A General MIDI expansion board adds 374 presets and 32 more notes of polyphony. Controller functions include four discrete zones, each with independent controller response. Controllers can be programmed to generate both positive and negative values. The on-board arpeggiator can be synced to MIDI and can arpeggiate

## MANUFACTURER ADDRESSES

**Advanced Gravis**, 101 3750 N. Fraser Way, Burnaby, BC, Canada V5J 5E9. (604) 431-5020. (800) 663-8558. Fax (604) 431-5155.

**Alaska Software**, distributed by Thinkware, 345 Fourth St., San Francisco, CA 94107. (415) 777-9876. (800) 369-6191. Fax (415) 777-2972.

**Crystal River Engineering**, 490 California Ave., Suite 200, Palo Alto, CA 94306. (415) 323-8155. Fax (415) 323-8157.

**Digidesign**, 1360 Willow Rd., Suite 101, Menlo Park, CA 94025. (415) 688-0600. (800) 333-2137. Fax (415) 327-0777.

**Dr. T's**, 124 Crescent Rd., Suite 3, Needham, MA 02194. (617) 455-1454. (800) 989-6434. Fax (617) 455-1460.

**E-mu Systems**, Box 660015, Scotts Valley, CA 95067-0015. (408) 438-1921. Fax (408) 438-8612.

**Emagic**, Box 750, Nevada City, CA 95959-0750. West Coast: (415) 738-1633. Fax (415) 738-1668. East Coast: (416) 944-8444. Fax (416) 944-1150.

**Farfisa**, distributed by Comus USA, 216 Stelton Rd., Unit E5, Piscataway, NJ 08854. (908) 752-8277. Fax (908) 752-8283.

**Fatar**, distributed by Music Industries Corp., 99 Tulip Ave., Floral Park, NY 11001. (516) 352-4110. (800) 431-6699. Fax (516) 352-0754.

**Generalmusic**, 1164 Tower Ln., Bensenville, IL 60106. (708) 766-8230. (800) 323-0280. Fax (708) 766-8281.

**Grande Software**, 19004 37th Ave. S., Seattle, WA 98188. (206) 439-9828. Distributed by Temporal Acuity Products, 300 120th Ave. N.E. Bldg. 1, Bellevue, WA 98005. (206) 462-1007. Fax (310) 426-2673. Fax (206) 462-1057.

**Grey Matter Response**, 1119 Pacific Ave., Suite 300, Santa Cruz, CA 95060. (408) 423-9361. Fax (408) 423-7324.

**Jupiter Systems**, Box 697, Applegate, CA 95703-0651. (916) 878-6666. (800) 446-2356. Fax (916) 878-8577.

**Kawai**, 2055 E. University Dr., Compton, CA 90224. (310) 631-1771. (800) 421-2177. Fax (310) 604-6913.

**Korg**, 89 Frost St., Westbury, NY 11590. (516) 333-9100. (800) 645-3188. Fax (516) 333-9108.

**k.s. Waves**, 59 Pinsker St., Tel-Aviv, Israel 63568. 972-3-561-4987. Fax 972-3-5287023. U.S. distributor: Rockwell Digital, 1245 16th St., Suite 100,

Santa Monica, CA 90404. (310) 315-3480. Fax (310) 315-1913.

**Kurzweil**, 13336 Alondra Blvd., Cerritos, CA 90701-2245. (310) 926-3200. Fax (310) 404-0748.

**Marion Systems**, c/o RiCharde & Company, 335 Willow Heights, Aptos, CA 95003. (408) 688-8593. Fax (408) 688-8595.

**Mark Daum**, contact Keith Green (905) 628-1881.

**Mark of the Unicorn**, 1280 Massachusetts Ave., Cambridge, MA 02138. (617) 576-2760. Fax (617) 576-3609.

**MiBAC Music Software**, distributed by Thinkware, 345 Fourth St., San Francisco, CA 94107. (415) 777-9876. (800) 369-6191. Fax (415) 777-2972.

**Novation**, distributed by Music Industries Corp., 99 Tulip Ave., Floral Park, NY 11001. (516) 352-4110. (800) 431-6699. Fax (516) 352-0754.

**Oberheim**, 2230 Livingston St., Oakland, CA 94606. (510) 261-1702. (800) 622-6434. Fax (510) 261-1708.

**Opcode Systems**, 3950 Fabian Way, #100, Palo Alto, CA 94303. (415) 856-3333. Fax (415) 856-3332.

**Peavey**, 711 A St., Meridian, MS 39301. (601) 483-5365. Fax (601) 486-1278.

**Ridday Systems**, 13004 N.E. 88th St., Kirkland, WA 98033. (206) 828-6209. Fax (206) 883-8457.

**RolandCorp US**, 7200 Dominion Circle, Los Angeles, CA 90040. (213) 685-5141. Fax (213) 722-0911.

**Stage Electronics**, 210 West Ave., Depew, NY 14043-3290. (716) 684-1090. Fax (716) 684-1091.

**Steinberg/Jones**, 17700 Raymer St., Suite 1001, Northridge, CA 91325. (818) 993-4091. Fax (818) 701-7452.

**Technics**, One Panasonic Way, Secaucus, NJ 07094. (201) 392-6140. Fax (201) 348-7954.

**Twelve Tone Systems**, 44 Pleasant St., Watertown, MA 02172. (617) 926-2480. (800) 234-1171. Fax (617) 924-6657.

**Voce**, 111 Tenth St., Wood-Ridge, NJ 07075. (201) 939-0052. Fax (201) 939-6914.

**WaveAccess**, Box 4667, Berkeley, CA 94704. (510) 526-5881. (800) 697-8823. Fax (510) 528-6958.

**Yamaha**, 6600 Orangethorpe Ave., Buena Park, CA 90620. (714) 522-9011. (800) 322-4322. Fax (714) 522-9832.

**Zeta Music Systems**, 2230 Livingston St., Oakland, CA 94606. (510) 261-1702. (800) 622-6434. Fax (510) 261-1708.



across all four zones.

The company was also demonstrating Version 3 software for the K2000. The update, priced at \$199, contains a 32-track sequencer with pattern and linear modes, event editing, and live performance arranging features, and a new hierarchical disk filing system, which allows the creation of directories and sub-directories, and greatly simplifies the handling of sample and preset data.

Award for the greatest number of new synth products: **Roland**, who premiered nine new toys. The RD-500 digital piano (\$2,795) features an 88-note weighted keyboard, 8Mb of waveform ROM, 28-note polyphony, and built-in effects. The E-66

**The Riday MIDI controller allows you to use the same fingering in all key signatures.**



## HOW SUITE IT IS....

**N**o bout adoubt it, there was plenty of hot stuff abrewin' on the convention floor. But the coolest stuff was only being shown in hotel suites far away from the noise and confusion of the main halls. In Suite One: **Korg's** X-230 electronic drum. In a surprising blend of modern technology and organic musical instrument design, Korg unveiled their first incarnation of a physically modeled instrument. The X-230 (catchy name, no?) is DSP-based — that's the modeled part — and as such, is capable of producing a wide variety of expressive timbres, from realistic snare drums to outer-worldly sproings and bar-mummphs. What's most intriguing about the instrument's design is that the acoustic impulse from the drum head — a stick hit, palm slap, brush stroke, or whatever — is used to stimulate the action of the model. This makes for a sound that is synthesized, yet has a decidedly real-world flavor to it. The sounds we heard were exceptionally dynamic and fresh.

In Suite Two: Tom Oberheim and his **Marion Systems** MSR2. The room itself was casual: a table, a couch, a few folks milling about, and an MSR2 wired into an amp and a small pair of speakers. But the sound in the room was anything but calm and collected. It was fat. Rich. Decidedly analog. Unmistakably Oberheim — er, Marion Systems. The first guess of many listeners was that they were hearing the sound directly from the OB-8 that was being used to drive the MSR2. Nope, no shenanigans here. This was the honest-to-goodness thing. But don't expect to be able to get your hands on one too soon: Word has it that there's already a six-month back order on units.

In Suite Three: ZIPI. No, not the pinhead — the proposed interface, as in the Zeta Instrumental Processor Interface. Brought to you by **Zeta Music Systems**, makers of hip guitar and violin MIDI controllers, and two other acronyms, CNMAT, the Center for New Music and Audio Technologies, and G-WIZ, the Gibson Western Innovation Zone labs, ZIPI is a proposal for a new communications protocol for musical instruments, computers, and related products. The main issues: ZIPI eliminates some of the primary constraints of MIDI, namely bandwidth, available channels, and number of definable controllers. ZIPI also facilitates real-time control over a wide variety of param-

eters — including those that have yet to be defined — making it potentially valuable for controlling a host of devices ranging from software-based synthesizers to virtual reality systems.

The meeting was attended by a number of music industry stalwarts, including developers, engineers, and musicians. Even a couple of rabble rousers were in attendance. Most of the time was spent simply presenting the proposal, though occasionally a specific item or two became the subject of some mild debate. Point is, ZIPI is too preliminary at this time to make a judgment call one way or the other. We will, however, say this: Technology is moving very fast, and there's no question that we need to address MIDI's current shortcomings. Consequently, some advanced protocol — be it ZIPI, MIDI II, or some as-yet-unnamed system — has to be developed. According to Zeta president Keith McMillen, the company plans to go ahead with ZIPI with or without the support of the MI industry. Can't say as we blame 'em: It may be the only way to keep things moving forward. Of course, it will then be only a matter of time before another company comes along with the Open ZIPI System or FreeZIPI. Won't that be fun?

—Michael Marans



**Korg's X-230 drum: the company's first instrument based on physical modeling synthesis technology.**



# POWER PACKED!

If you are looking for truly professional music software, the search is over. The Cubase line of music recorders for Mac™, Windows™ and Atari™ is the answer. Whether you need MIDI sequencing, Score Printing, Digital Audio Recording or an integrated solution - **there is a Cubase tailored to your needs!**

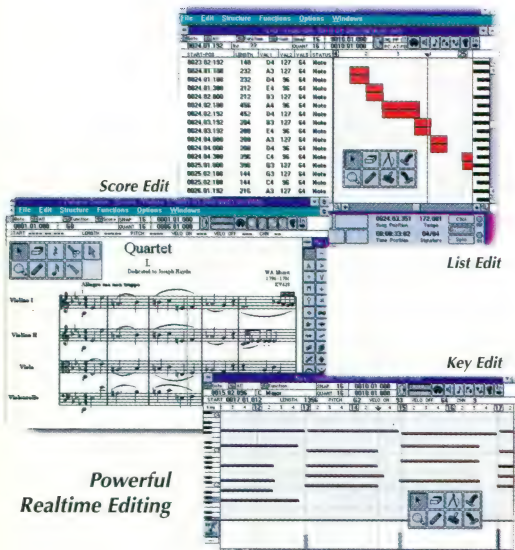
With the intuitive Arrange Window, and the **mouse controlled Tools** for easy editing, you maintain an overview of your work at all times. **All functions are realtime:** You can quantize, mute, move and delete any parts of your recordings while the sequencer plays -

**Don't stop the music!**

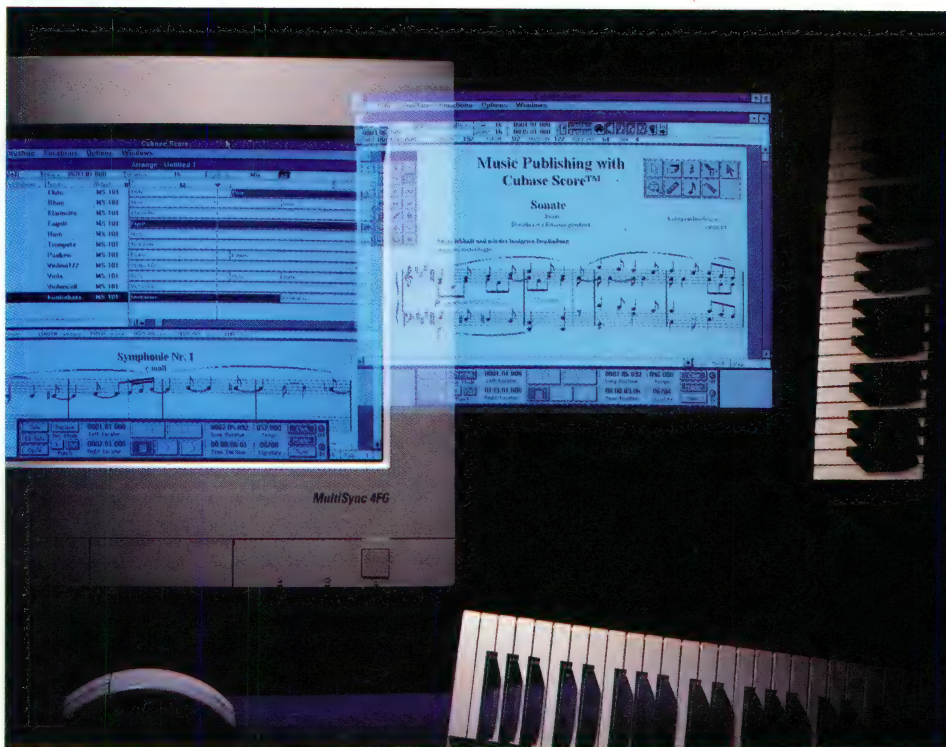
But our famous interface is only half the story. What you don't see is equally important - at least to Steinberg, the driving force is essential. The Cubase Engine has this power, with ultralinear resolution, multitrack-recording, flexible quantization and an open-ended concept. In Cubase, quantization isn't mere error correction: No less than 6 different methods are available, including the famed **Groove Quantize**. Now you can add real feel to your music. And the original performance can be restored at any time - even after saving!



High Quality  
Scoring



Powerful  
Realtime Editing



**List Editor**, or piano-roll style with the **Key Editor** or as notation display with the **Score Editor**.

And Cubase allows not only undoable undo operations, but complete edit-security with the discard-all-edits function. All edits are realtime edits.

**Don't stop the music!**



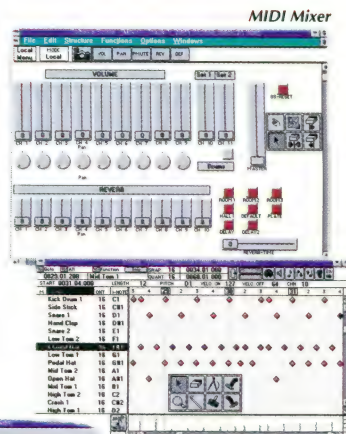
Unique Grab & Use Toolbox

The **unique Drum Editor** visualizes your percussive playing. The **MIDI Mixer** provides user definable, animated MIDI controls, e.g. moving-faders, controlling volume, or rotary controls changing the System Exclusive parameters of your synth. The choice is entirely yours.

**Score Printing** is an integral part of the Cubase technology. Steinberg's Score Printing is **professional** score printing not just "screen-dump to paper". So you won't need a separate application for your scoring needs!

**Digital Audio** completes the picture: Steinberg was the first company with integrated Audio Recording for all important computer systems.

And Craig Anderton is right: **Cubase is damn fast!**\* So what are you waiting for?



MIDI Mixer



Drum Edit

Advanced Tools

Groove Quantize

\*Craig Anderton, Author, Musician, Editor.

## Steinberg

Distributed in the US and Canada by Steinberg/Jones,  
17700 Raymer Street, Suite 1001, Northridge CA 91325  
Phone: 818-993-4091 - Fax: 818-701-7452



# NAMM '94: ON SOLID GROUND

is the newest addition to the "Intelligent Synthesizer" line (how many "dumb" synths can you name? On second thought . . .). It offers 56 on-board styles, built-in speakers, selected sounds from the JV series synths, and a variety of auto-accompaniment functions. For the church market, there's the W-50 (\$2,195), which contains a variety of organ sounds in addition to a General MIDI sound set. Other features include 56-note polyphony, 16-way multitimbral operation, and a built-in disk drive.

The **JV-35** (\$1,295) is a 28-note polyphonic synth that can be expanded to 56-note polyphony via an optional expansion board. The unit offers reverb and chorus, GM compatibility, and music minus one capabilities. Add a disk drive and Standard MIDI File playback capability and you've got the **JV-50** (\$1,595). Now, take a **JV-50**, stick a 76-note keyboard on it, and add waveform expansion, MIDI controller functions, eight front-panel sliders, and a few extra audio outputs, and you've got the **JV-90** (\$1,895). While we're talking expansion: The **SR-JV80-04** (\$445) lets you add 8Mb of classic analog synth waveforms to your **JV-80/880/90/1000** and **JD-990** synths.

For more modular folks, there are two new Sound Canvas models, the **SC-50** (\$695), a budget version of the popular mkII model, and the top-of-the-line **SC-88 Super Canvas** (\$1,095). The Super Canvas boasts 64-note polyphony, 32-part multitimbral operation,



Small package, big sound: the Voce Electric Piano module.

programmable multi-effects, and "easy front panel editing." (Hey, what's wrong with sys-ex?) Bandless musicians will want to check out the **MT-120S** (no list price available), which combines a General MIDI compatible sound module with a five-track MIDI sequencer and powered speakers in a single box — just the thing for spur-of-the-moment practice sessions.

Guitarists need not fear being left out of the fun: The new **Roland GR-9** guitar synth (\$995) features 28-note polyphony, 180

tones (expandable to 360 with the **GR9E-1** expansion board, \$195), and on-board reverb and chorus.

**Peavey** managed to knock out a few new synths as well. Causing the biggest stir at their booth were the **PCX 6** (\$2,799.99) and its 88-note twin, the **PCX 688** (\$3,299.99), combination sampler/sample-playback synths. The units feature stereo 64x oversampling delta-sigma A/D, 32-voice polyphony, support for up to 64Mb of RAM, 10Mb of waveform ROM, dual multi-effects, on-board 16-track

## PLUG-IN MANIA

**T**here's no question that **Digidesign** has a lock on professional-quality digital audio hardware for the Macintosh; their Sound Designer II audio recording/editing software is also an industry standard. So it's not surprising that many software companies have chosen to develop products — both stand-alone programs and plug-in modules — that work in conjunction with the Digidesign products, notably **SD II**, **Pro Tools**, and the **TDM Digital Audio Bus**.

**k.s. Waves**, makers of the **Q10** software equalizer, have two new plug-ins, the **L1-Ultramaximizer**, a brick-wall limiter, and the **C1**, a compressor/limiter/gate (prices to be determined). Both modules incorporate the company's **IDR** (Increased Digital Resolution) technology, which combines noise-shaping and dithering to reduce non-linear distortions caused by converting high-bit-resolution audio to lower bit resolutions. Version 2.0 of **Region Mung** (\$99.95) was also announced. In addition to the program's original function as a utility for easily creating multiple files out of a single long file, version 2.0 now adds automatic region creation to its list of operations. For **Pro Tools** owners there's **Track Transfer** (\$99.95), which allows you to merge multiple **Pro Tools** sessions.

The mad loopers at **Jupiter Systems** announced the **Multiband Dynamics Tool** (\$399), a plug-in module that allows users to configure compressors, limiters, expanders, and gates. Hip-ster yet: The software also offers a multiband mode, allowing the creation of de-essers, spectral enhancers, and dynamic EQs.

**Crystal River Engineering** is planning to release **Spatial Effects** (price to be determined), 3-D spatialization software for **Pro Tools** and **TDM**. The program will provide assorted acoustic environments and controls for designing customized spaces. Both the sound source and the listener can be placed anywhere in the space, and moved via the mouse or pre-recorded paths. Hey . . . listen. Over here. No, over here. No, wait, back here. Fooled ya! We're down here. . . .

And from **Grey Matter Response** comes the **Sys/Axe QuickTime Enabler** (price to be announced), a software utility designed to enhance digital video display and simplify data storage requirements for the **Pro Tools** option **Post View**.

—Michael Marans



Form and function as art: Korg's new **C56FP** digital piano. Why FP? Why, for French Provincial, of course. Très continental.



# NAMM '94: ON SOLID GROUND

sequencer with digital audio tracks, SCSI, programmable sliders, and, yes, the kitchen sink. The SP+ (\$1,499) is the latest version of the DPM SP sample-playback module. New features include 32-note polyphony, support for up to 64Mb of RAM, resonant filters, and built-in effects.



The new flagship in Technics' digital piano line, the SX-PR307, features 64-note polyphony and a 16-track sequencer.

We saw this one for the first time at the Jan. '92 NAMM, but it's now ready to go: Peavey's Spectrum Synth (\$399) offers 2Mb of classic synth waves, 24 oscillators, 12-voice polyphony, and 12-way multitimbral operation in a single rack space. You even get dynamic resonant filters, hard sync, and pulse-width modulation. If you already have a favorite sound source, you may want to check out the Spectrum Filter (\$399), which contains the same filter and amplifier circuitry as the classic Minimoog; you simply pump in your own signal and process away. Envelopes can be triggered via MIDI, or using the built-in envelope follower. And here's a tip for those of you who like to stay on the cutting edge: For hip sounds, try playing a kazoo through the Spectrum Filter. Why does that work? Because the sound output of the kazoo is very similar to that analog staple, the sawtooth wave. Remember, you heard it here first.

While we're talkin' vintage sounds, **E-mu Systems** debuted the Vintage Keys Plus (\$1,295), which offers 16Mb of classic waves — 8Mb of new waves (of old instruments, of course) along with 8Mb from the original Vintage Keys module. Owners of the standard Vintage model won't be left out: The new 8Mb sound set (priced at \$299) can be user-installed into the older units. Also on hand: the UltraPro-



Kurzweil blends high-quality sound with low prices in its RG-series pianos.

teus (\$1,795), which takes waveform ROM (16Mb total) from the Proteus/1, 2, and 3, throws in some new drums and other assorted waves, adds a healthy dash of Z-plane technology (the filter technology used in the Morpheus), and puts the whole shebang in a single rack space.

The company also announced version 2.1 software for the Ellix series. The free update includes time compression/expansion and Transform Multiplication, a DSP algorithm that merges two soundfiles, accentuating fre-

Eat.

Sleep.

Play Keyboards.

# Nothing else matters.

Nationally recognized and accredited programs for the serious musician. Keyboards, Guitar, Bass, Percussion, Vocals and Recording Engineering. Professional training, hard work and nothing else.

## MUSIC TECH

Musicians Technical Training Center, Minneapolis

Call for a brochure or a visit, 1-800-594-9500.

1. THE RIGHT ADVICE
  2. THE RIGHT GEAR
  3. THE RIGHT PRICE
- ....RIGHT HERE.

*Radline's*  
M · U · S · I · C

Keyboards, Guitars, Amps, Pro Sound, Recording, Software & Accessories

Run by Musicians for Musicians



(800)

525-5149

FAX (818) 881-6405

Call or write to Dept. K 5/94 at:

18136 Sherman Way, Reseda, CA 91335 (818) 881-1411  
6251 Santa Monica Bl., Hollywood, CA 90038 (213) 464-7550  
560 N. Nimitz Hwy., Honolulu, Oahu 96817 (808) 531-ROCK



# AT LAST . . . A COMPLETE JINGLE PRODUCTION COURSE

Copyright 1993  
RSM

**FULL-TIME, PART-TIME, ANYTIME YOU WANT YOU CAN WRITE, PRODUCE AND SELL JINGLES ALL OVER THE COUNTRY NO MATTER WHERE YOU LIVE. THE SIZE AND ADDRESS OF THE TOWN YOU LIVE IN DOESN'T HAVE A THING TO DO WITH IT. THE KNOWLEDGE CONTAINED IN THIS COURSE . . . DOES.**

My name is La-Dair Guzman and I have been selling Jingles all over the country for the last 17 years. I started my Jingle career in motel rooms while on the road six nights a week playing music in clubs across the Midwest. I made more money selling Jingles than playing music.

## I'VE ALREADY MADE THE MISTAKES FOR YOU.

In the past 17 years I have sold Jingles one-on one, through the mail, through radio stations, ad agencies and on the phone. Which one do I recommend? I personally enjoy the phone the best. I have Jingles in 47 states and I haven't met face-to-face with 95% of them.

## WHY SHOULD YOU ORDER THIS COURSE?

Because I'm going to show you all the secrets of the Jingle Business. The "real" world secrets of this business. With this course you will know exactly how to make the money you want in the Jingle Business. You will learn. . .

How to get clients anytime and anywhere.  
How to write slogans and Jingles in minutes not hours.  
How to compete with the "big boys."  
How to record a top quality Jingle package for less than \$50.00 and sell it for \$1000.00!  
How to make \$100-\$1000 next weekend  
How to syndicate and make the big money  
How to tell if the radio station is your friend or foe.  
How to travel anywhere in the country for FREE.  
How to use sound effects and character voices to make quick bucks in minutes. I SINCERELY MEAN THIS WHEN I SAY, "THERE IS A WHOLE LOT MORE!!!!"

This is not just another "How To" book. This is a complete Jingle business course that you can take as far as you want to go. **357 PAGES JAM PACKED WITH EVERYTHING YOU NEED TO KNOW ABOUT THE JINGLE BUSINESS.** You will never be left with unanswered questions about what to do next.

**YOU WILL NEVER BE ALONE UNTIL YOU WANT TO BE.** Because when you order this course you will also receive **FREE** phone/ mail consultation for one full year.

## AM I WORRIED ABOUT TEACHING YOU EVERYTHING I KNOW?

Not a chance! Why? Because the Jingle Business is as big as the **WHOLE UNITED STATES OF AMERICA.** This is a big country with literally millions of businesses that use and need Jingles, voice-overs and musical advertising. I'm like a knat on an elephant.

## WHAT YOU LEARN IN THIS COURSE WILL PUT YOU LIGHT YEARS AHEAD.

Most people look around at their town and estimate how many Jingle sales are there. The size of your town doesn't matter. I'll show you how to sell Jingles all over the country. I will teach you things that will save you at least five years of your time. Even simple things like, how one sentence can kill a Jingle sale. Amateurs use it every day.

## WHAT DO I GET AND HOW MUCH?

1. 357-page manual (which also includes all of the paperwork and agreements I have used in the past 17 years).

2. A **FREE** Bonus book that can be worth hundreds of thousands of extra dollars to you. It's called, **"HOW TO**

**MAKE MONEY WITH YOUR MUSIC WITHOUT HAVING TO PLAY IN BARS."** This book shows you over 20 different ways to make money with your musical talent that I have personally worked on and know are money makers. Things like . . .

Concert Promotions  
Fund raising Tapes  
Custom on Hold Music for Business Phones ( I know of a company who sells 1000 of these packages a week! )  
Contests  
Cassette Coupons  
Club consulting  
Recording and Marketing Your Own Tapes. . . And Yes, it's true, "A Whole Lot More." I sold this book nationally for \$40.. It is yours **FREE** when you order.

3. If you act on this offer within the next 30 days I will include two valuable extra special reports **FREE.**

**Report 1.** Government Grants just for musicians. That's right, the government has millions of dollars it wants to give away to musicians. For example, there is a government grant up to \$50,000 to encourage the recording and distribution of American music. There are government grants for solo acts to play jazz, etc. This report gives you the requirements and guidelines so that you can get your fair share of any government grant you are qualified for.

**Report 2.** "The ABC's of Syndication." If you have traveled the country, you might have noticed that the same Jingle you heard in one area is playing in other areas. That's syndication and that's where the big-money is. Think about this. Every morning when you get up and read your favorite newspaper cartoon, that cartoonist might have only made \$5.00 from your local paper. But, syndication means that newspapers all over the country are paying \$5.00 for that cartoon also. That \$5.00 per paper could be making it's creator up to \$5000-10,000 per day.

4. One full year of **FREE** phone/mail consultation.

5. Receive this **SPECIAL OFFER** good for this ad only. If you order from this ad I will give you a **FREE** one year subscription to the only newsletter for the Jingle Business. "The Guerrilla Jingle Producers Newsletter." Every month you'll receive a jam-packed issue giving you the only information of it's kind. Become a part of a network of other Jingle Producers. **FREE** classifieds to sell equipment, trade or sell music beds. Regular subscription price is \$127 per year. Whew. . . that's truly everything you need to make it in the Jingle Business. A \$415, value for only \$249. **You save \$166.** Shoot, I sold my motel room Jingles 17 years ago for more than \$249. One Jingle sale and you will be on the profit side of this business.

**HERE IS "ONE" OF MY GUARANTEES TO YOU:**  
If, after studying and following my course and the step-by-step directions for 60 days, you are not satisfied, you can send it all back in resalable condition for a full refund.

**IF YOU HAVE THE TALENT, THE ABILITY TO CREATE MUSIC WHY NOT USE IT TO LIVE THE LIFE YOU WANT? HERE IS YOUR CHANCE TO MAKE MONEY AND HAVE THE MOST FUN YOU WILL EVER HAVE. LOOK AT IT THIS WAY . . . IF YOU DONT THINK THAT YOU HAVE ENOUGH TALENT TO EARN BACK YOUR \$249- PLEASE DONT BUY THIS COURSE.**

## WRITING THIS AD WAS FRUSTRATING . . .

My biggest concern as I wrote this ad was whether or not I answered all of the questions that will come to your mind as you read it. So I decided to do something I hadn't planned on doing. Here is my phone number 801-576-1101 and I want you to call me if I have not made

something clear to you. Maybe you have a question that I have not addressed in this ad. Maybe you need some special arrangements to pay for the course. I remember a jeweler who paid for his Jingle package with a diamond ring. I also had a nightclub owner that paid for a \$2000.00 Jingle package with the quarters from his video games and pool tables. Don't be shy. I'm a musician and I'm getting tired of seeing other musicians with even more talent than I have frustrated that they can't make the money their talents deserve. This is the answer you have been looking for if you want extra money or want a full time career.

## What others are saying about the Jingle Course!

*I've been a professional musician for almost twenty years, including many sessions recording jingles for other people. Yet, those in the business have always been reluctant to share their marketing strategies, for fear of competition I suppose. Your course is a long awaited breath of fresh air! Simple, concise, creative thought in an industry clouded with hype, WHAT A CONCEPT! S. Diamond. . . Nevada*

*I just received my copy of "The Complete Jingle Course" and wanted to commend you for putting together such a thorough package. B. Cook. . . Texas.*

*Your Jingle course will indeed shorten the learning curve to the Jingle business. It all makes sense to me. I even just tried out a few of your tips for initial contact to see what rebuttals I might need, and getting the demo was too easy. R. Plates. . . Florida*

*. . . everything was laid out so clear, and easy to understand. Four days after receiving your course I was at a radio station negotiating a deal. A big thank you. This was one of my best investments. . . D. Mazor. . . Toronto, Canada*

**LET'S SEE YOU BEAT THIS OFFER ANYWHERE!**  
IF YOU ORDER "THE JINGLE PRODUCTION COURSE" FROM THIS AD YOU RECEIVE THIS **CONDITIONAL GUARANTEE:** UP TO ONE FULL YEAR FROM THE DATE OF YOUR ORDER, IF YOU MAKE 12 JINGLE PRESENTATIONS (THAT'S ONLY ONE A MONTH) AND YOU DO NOT SELL ONE JINGLE PACKAGE, SEND ME A CASSETTE OF THE 12 JINGLES, THE NAMES AND ADDRESSES OF THE CLIENTS YOU MADE YOUR PRESENTATION TO. AFTER VERIFICATION THAT YOU DID INDEED MAKE 12 LEGITIMATE PRESENTATIONS WITH NO SALES RESULTS, **I WILL SELL A JINGLE PACKAGE FOR YOU.** YOUR IDEA OR MINE? IT DOESN'T MATTER. I WILL THEN SEND YOU A \$249 REFUND AND KEEP ANY PROFITS ABOVE THE \$249 REFUND. PLUS, I'LL LET YOU KEEP THE WHOLE COURSE. LET'S SEE ANYBODY BEAT THAT GUARANTEE!!

**THE ONLY WAY YOU CAN LOSE ON THIS OFFER IS IF YOU PASS IT UP. IT'S UP TO YOU.** If you've got the talent or you ready to learn, why not start right now? Order Today. Here is the address for checks and money orders. If you would like **SUPER FAST SERVICE** ON YOUR CREDIT CARD. . . **CALL 1-800- 365-8688**

RSM-Direct  
3353 S. Main, #133  
Salt Lake City, UT 84115

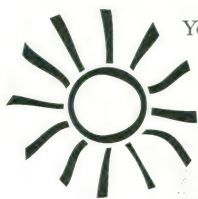
Please send me the "Jingle Production Course" with your special conditional guarantee. Enclosed is a check or money order for \$249 plus \$8 shipping and handling. Total of \$257. **DONT FORGET MY BONUSES. THE BOOK-THE TWO REPORTS-THE ONE YEAR SUBSCRIPTION TO THE NEWSLETTER.**

Send to: Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

To send in credit card orders please send card type (American Express-Visa-Mastercard) Card Number, Expiration Date, and Signature.



## Wake Up Your Sampler With InVision Sounds and a CD-ROM Drive!



You need more than just a sampler to create great music. You need sounds! Accessible sounds. And lots of them. InVision offers over 50 CD-ROMs and equipment bundles you won't find anywhere else!

### Introducing Miroslav Vitous

Now you don't need to hire a symphony orchestra to hear your scores performed. The *Virtual Symphony* with five CD-ROMs for every major sampler is here!

### Mike Pinder Mellotron

The former Moody Blues keyboardist has put together the ultimate collection of Mellotron and Chamberlin sounds—direct from the

outputs of Mike Pinder's Mellotron! Flash back to the '60s and '70s with this one.

### InVision Lightware™ series for \$188

For almost every sampler, InVision offers all the instruments and sound FX you'll ever need at prices starting at \$188. From percussion to pop instruments, electric to acoustic, modern to exotic, we've got it.

### Northstar Library

Known for the consistent quality of its ethnic, sound FX, rock and jazz material, we'll help you find the right sounds.

### Unshoppable Equipment Packages

Don't have a CD-ROM drive? Looking for a killer deal on a sampler like E-mu's EIIIIX? We'll get you started with prices you can't ignore.

**We know about sounds. Call 408-438-5530.**

**InVision**  
INTERACTIVE  
Mention K52

## NAMM '94: ON SOLID GROUND

quencies common to both files while discarding those that are not common. The process can be used to impart the resonant characteristics of one sound onto another. If that's too disciplined for you, you can just create wacky stuff.

No question about it, analog is the vogue — unless you're **Novation**, in which case *analogue* is definitely where it's at. The English company announced the BassStation (\$549.95), an analogue bass synth. The monophonic subtractive synth has two oscillators, a VCF with resonance, an LFO, and two envelopes. The filter and amplitude envelopes may be controlled via MIDI in real time. Soundues coule, noe?

More flashes from the past: **Stage Electronics** introduced the Mini (\$1,195), a programmable analog synth. In the tradition of the early (or earliest) synths, the Mini is monophonic, though multiple Minis may be stacked for polyphonic operation. Features include three oscillators, a noise generator, a VCF, two VCAs, glide, and MIDI. Also available is the Mini Remote (\$595), which contains a multitude of dedicated buttons for programming the Mini (a single remote can be used to program multiple units). If the front panel layout of the remote unit doesn't look familiar to you (see picture on page 96), you're probably too young to attend an R-rated movie by yourself. As to why the company chose to follow a tried and true model, it's in their blood: Stage Electronics was founded by former Moog employees.

No former employees here, but plenty of familiar names: the OB-Mx from **Oberheim** is finally becoming a real product. We've reported on it a few times before in previous NAMM roundups, so we won't go over the details again, other than to say it's an analog synth that features both Oberheim and Moog filters. What makes the whole thing rather amusing is that Tom Oberheim has nothing to do with the company called Oberheim and, in fact, cannot use his own name on his own products. (Tom's company is Marion Systems, makers of the MSR2 discussed in the "How Suite It Is" sidebar on page 97.) Bob Moog, whose filters are in the OB-Mx, had nothing whatsoever to do with the product, and also can't use his own name on the gear he designs and manufactures. (Bob's company is Big Briar.) Heading up the OB-Mx design team was synth pioneer Don Buchla, who — unlike our other founding fathers — actually markets products under his own name. Guess all this is no weirder than Roger Linn designing products for Akai

## THE RIGHT EQUIPMENT. THE RIGHT PRICE. RIGHT AWAY.

**1-800-966-9686**

Call Century Music Systems today and talk with knowledgeable sales people about the musical equipment you need.

- Free Same-Day Shipping
- Leasing Available
- Major Brands
- Open Monday - Saturday, 10AM - 6PM CST
- Specializing in Keyboards, Digital Recorders, Multitrack, Software, and Signal Processing.

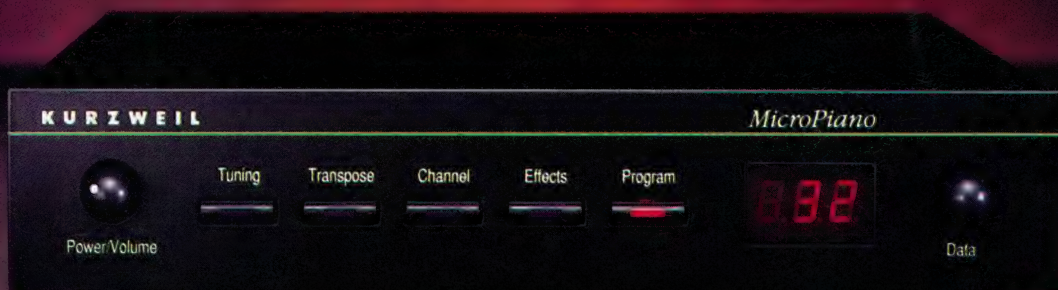


3515 Sunbelt Drive North, San Antonio, Texas 78218  
FAX: 210/822-7453.  
MC, VISA, AMEX & DISCOVER ACCEPTED



# The new Kurzweil MicroPiano.™

## \$499 of pure inspiration.



The new MicroPiano –  
The half-rack module features 32  
Presets including Kurzweil's new  
Grand Piano samples, Strings,  
Hammond® Organ,  
Electric/Electronic Pianos as well  
as 16 superb digital multi-effects.

Musicians have always envied those who have had the legendary sounds of a *Kurzweil* at their command – especially our grand pianos, electric pianos, strings and organs. With the new \$499 *MicroPiano* sound module, you can now add all these great sounds (and others) to your keyboard setup.

The *MicroPiano* features 32 of the most sought-after keyboard sounds with full 32-note polyphony (64-note with two *MicroPianos* in the exclusive *Link Mode*). In addition to keyboard sounds, Kurzweil's lush string section, played solo or layered with another sound, creates a gorgeous orchestral ambiance. Some sounds are based on the proprietary samples from the award-winning *K2000*, but many are brand new, available only in the *MicroPiano*. If you don't have a nine-foot concert grand and a great recording engineer, you need the *MicroPiano*.

Besides the acclaimed Kurzweil samples, the compact, half-rack module offers the kind of playability a keyboard player expects, with 16 superb, crystal-clear digital multi-effects, useful MIDI control capabilities and fully-functional soft, sostenuto and sustain pedal response. The user interface is straightforward, easy-to-use and includes Tuning and Transposition as well as Stereo Outputs.

At just \$499 suggested retail, we've made it a lot easier for you to play a true Kurzweil. Whether you're a novice or a pro, audition one today at your authorized Kurzweil dealer.

The new *MicroPiano*.

It's Pure Kurzweil.

And ...

**KURZWEIL**  
*Music Systems*

Kurzweil is a product of Young Chang America, Inc.,  
13336 Alondra Blvd., Cerritos, CA 90701  
Tel: (310) 926-3200 Fax: (310) 404-0748

*Pure Inspiration.*



## LAPTOP MIDI PRO



The **MIDIEngine 2Port/SE** is the only MIDI interface with pro features for IBM compatible laptops. Includes efficient dual MIDI ports and bullet-proof SMPTE sync. Connects to the parallel printer port of your desktop, laptop, or notebook PC. Multi-client Windows driver & Cakewalk driver included. Priced so you won't have to settle for less.

USA/Canada  
1-800-876-1376

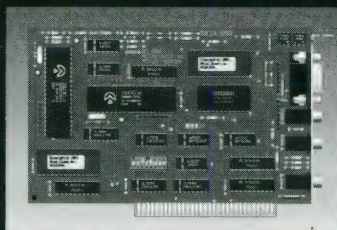


**Music Quest**

1700 Alma Dr. Suite 330 Plano, TX 75075  
Ph: 214 881-7408 Fax: 214 422-7094

MIDIEngine 2Port/SE™ Music Quest, Inc. Other trademarks acknowledged

## DESKTOP MIDI PRO



The **MQX-32M** is the multiport MIDI standard for IBM compatible desktop PC's. It features dual MIDI ports and bullet-proof SMPTE sync designed for professional use. With MPU-401 compatibility and the included multi-client Windows driver, the MQX-32M is the interface preferred by serious musicians worldwide for all IBM MIDI applications.

USA/Canada  
1-800-876-1376



**Music Quest**

1700 Alma Dr. Suite 330 Plano, TX 75075  
Ph: 214 881-7408 Fax: 214 422-7094

MIDISTRIP™ Music Quest, Inc. Other trademarks acknowledged

## NAMM '94: ON SOLID GROUND

and Dave Smith consulting for Korg.

Those wizards of miniaturization, **Voce**, have managed to squeeze the sounds of several popular electric keyboard instruments into a half-rack-sized module. Called the Voce Electric Piano (\$549), the additive synthesis-based unit features recreations of the Wurlitzer, Rhodes, and Pianet electric pianos, plus Clavinet and harpsichord. Stereo tremolo, chorus, and wah-wah effects are included.

**Kawai** was showing the KC20 (\$699), a 61-note velocity-sensitive keyboard that features a General MIDI soundset, 28-note polyphony, and a built-in computer/MIDI interface. A low-cost GM module, the GMega LX (\$399) was also introduced. The unit offers 28-note polyphony and on-board reverb, and comes bundled with educational and MIDI sequencing software.

In a large booth that housed a number of Italian manufacturers, **Farfisa** was introducing accessories for their F1 and F5 keyboards. The Multimedia Musical Unit, a.k.a. the MMU 100 (price not available), is designed for interfacing the F-series keyboards with a television set, allowing lyrics and other text messages that are transmitted by the keyboard to be viewed on a large screen. Video camera and video recorder inputs allow the text messages to be blended with graphic images—even a live picture of yourself singing along. Smile! You're on Karaoke Kamera!

New software add-ons for the F1 and F5 were also announced. The SOE-01 software (price not available) allows you to create new sounds or modify existing ones. Parameters are available for editing in both sample playback and FM synthesis modes, with a number of parameters being represented graphically to facilitate the editing process. STE-01 (price not available) is designed for creating new accompaniment styles. Styles may be designed from scratch, or made up of snippets of existing styles. All components of a particular style — Intro, Variation, Fill 1, Ending 3, etc. — can be edited and saved to disk.

**Generalmusic** was showing the S2r (\$1,995), a rack-mount version of their S2 MusicProcessor. Features include 32-note polyphony, 500 on-board sounds, and a 250,000-event sequencer. All S-series models now come factory-equipped with the Turbo enhancement, which adds flash memory, more sounds, and the ability to read samples from other manufacturers' libraries. The new CD Hyperkeyboard synths, the Cd1, Cd2, and Cd3 (no list prices available), feature 32-note polyphony, 256 PCM General MIDI

## CONSUME THE MINIMUM • PRODUCE THE MAXIMUM

WITH LOW-PRICED, HIGH-POWERED SOFTWARE FROM **OSC**



**DECK II™ \$399**

DIGITAL AUDIO WORKSTATION SOFTWARE FOR MACINTOSH

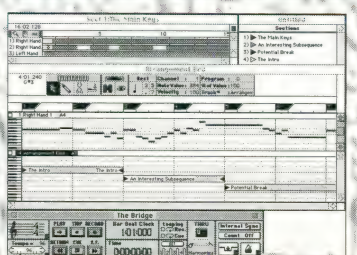
DECK II OFFERS CD-QUALITY MULTITRACK HARD DISK RECORDING WITH TIMELINE-STYLE WAVEFORM EDITING, CONTINUOUS SYNC TO ALL SMPTE FORMATS, UNLIMITED VIRTUAL TRACKS AND DIGITAL MIXING, REAL-TIME MOVING FADER AUTOMATION, SYNCHRONOUS QUICKTIME MOVIE PLAYBACK DIRECT FROM DISK AND TANDEM OPERATION WITH METRO FOR INTEGRATED MIDI + DIGITAL AUDIO. FOUR TRACKS ON DIGIDESIGN SOUND TOOLS II/AUDIOMEDIA™, SIX TRACKS ON SPECTRAL INNOVATIONS NuMedia™ CARDS AND 660AV, EIGHT TRACKS ON PRO TOOLS™ + MACINTOSH 840 AV. 660/840AV - NO AUDIO CARD REQUIRED!

DECK II won the 1990 and 1993 MacUser Eddy Award for Best New Music & Sound Product



**METRO™ \$225**

METRO IS OSC'S PROFESSIONAL MIDI SEQUENCER, WITH THE FEATURES YOU EXPECT FROM A HIGH-END SEQUENCING PACKAGE PLUS A SIMPLIFIED INTERFACE AND FULL BACKGROUND & FOREGROUND SYNCHRONIZATION WITH DECK II. METRO INCLUDES SUPPORT FOR GALAXY™, UNISYN™, OMS, MIDI MANAGER AND MIDI TIME PIECE™.



CALL OSC AT 1-800-343-DECK TO LEARN MORE.





JADER BONFIGLIOLI GRAPHIC DESIGN

## Turbokit

### Advanced Upgrade Kit for S2 & S3 Music Processors

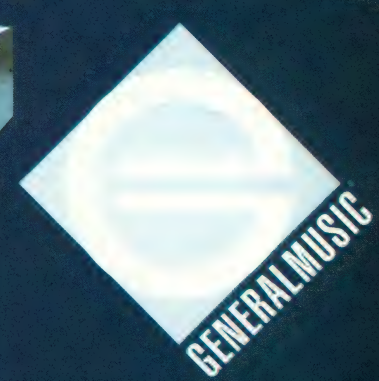
- PLUG IN TURBOKIT AND GET:**
- Polyphony 32 notes max
  - 500 ROM Sounds
  - 1,500 Programmable Sounds
  - 100 Performances
  - Built-in Version 2.0 of Sample Translator (reads various Disk Formats, including Akai \* S1000 (HD formatted), Avalon, Sample Vision and Wave)
  - 3 Sound Edit Modes: Single, Dual Oscillator, Dual Crossfade
  - New Sequencer Functions
  - Enhancement of User Interface
  - System Exclusive
  - Optional Static Memory Expansion
  - And Much More!
- \* Akai is a registered trademark of Akai Professional.

## S2/R



### All the power of the Music Processor into a 3 unit Rack Module

- Polyphony 32 notes max
- 6 MBytes ROM
- 500 ROM Sounds
- 1,500 Programmable Sounds
- 100 Performances
- 2 MBytes RAM + built-in Version 2.0 of Sample Translator
- Optional Static Memory Expansion
- 3 Sound Edit Modes: Single, Dual Oscillator, Dual Crossfade
- 32 Digital Filters (5 Types with Resonance)
- 2 Programmable Digital Effects Processors
- Super 16-Tracks Sequencer with 250,000 Events capacity, Microediting and SMF compatibility
- Sophisticated control over 32 MIDI Channels
- Graphic neon backlit Mega Screen
- Open-end System with a fast-growing Software Library

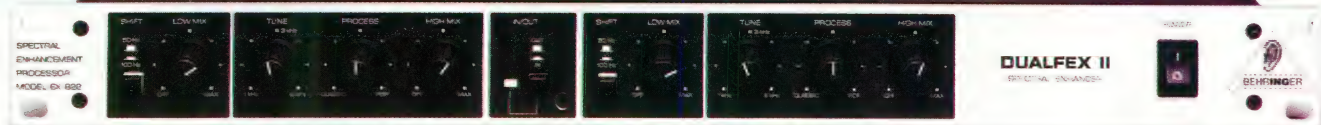


Sales Division: 47048 San Giovanni in Marignano (FO) Italy  
Via delle Rose, 12 Tel. (0541) 957336 - Fax (0541) 957404  
Telex 550555 GMUSIC I

Distributed in U.S.A. by: GENERALMUSIC CORP.  
1164 Tower Lane Bensenville Illinois 60106  
Phone 708/766-8230 Fax 708/766-8281



THE BEST WAY  
TO TAKE  
YOUR MUSIC  
FROM  
HERE . . . TO HERE.



Suggested retail list \$279.

## Introducing the new DUALFEX II from Behringer.

Have you noticed a difference between your recordings and the sound of CDs and tapes from your favorite artists? You can't fix it with EQ. And adding more parts to the mix just makes everything sound muddier.

With the new DUALFEX II, all your parts stand out bright and clear, up front in the mix. Once you hear how it makes your music jump, you won't be able to live without it.

You've heard about exciters and enhancers. The DUALFEX is both — and more. Its unique Variable Sound Processor lets you manually adjust the processing from "enhance" to "excite," and get every sound in between.

And, unlike other units, the Dualfex's tunable high pass filter allows you to tailor the high end

while a separate frequency switchable Bass Processor lets you fatten up the bottom.

Best of all, you get the musical, satisfying level of sonic performance and noise-free sound enhancement you've come to expect from Behringer.

DUALFEX II. The best way to go if you want to take your music to a better place.

THE PERFECT EAR.



For more information about Behringer Signal Processing, please call 1-516-932-3810 or write to Samson Technologies Corp., P.O. Box 9068, Hicksville, NY 11802-9068.

Behringer is exclusively distributed in the U.S. by Samson Technologies Corp.

©1993 SAMSON



# NAMM '94: ON SOLID GROUND

voices, an on-board multitrack sequencer, digital effects, 64 styles with variations, and built-in speakers. The top-of-the-line Cd3 also offers a disk drive, the ability to load PCM data, and expanded sequencer memory. All this sounds cool, though we wonder about the name *Hyperkeyboard*. Does that mean you can't use it for ballads?

## MIDI CONTROLLERS

You knew it had to happen. We've been predicting it, joking about it, denying it — you name it. What is it? Why, the brainwave-to-MIDI link, of course. WaveRider, from **WaveAccess**, is a software and hardware package that allows you to "talk" to your PC via four sensors attached to your body; the sensors read brain, heart, muscle, and skin activity. Messages from the sensors are then converted by the WaveWare software into data that can be used by MIDI devices or a simple PC soundcard. This all sounds very hip, but we're a little worried by a statement found in the company's literature. To wit:

"WaveRider reaches into your body and mind to play the music locked in your soul." Don't you think that's getting a bit too personal?

From **Novation** comes the MidiCon (\$169.95), a 25-note keyboard designed for multimedia applications. The battery-operated unit offers velocity-sensitive keys, pitch-bend and mod wheels, a sustain pedal input, and an eight-octave transposition range. **Fatar** introduced the CMS 61 (\$479.95), a 61-note, velocity-sensitive keyboard also designed for the computer set. Features include sustain and volume pedal inputs, two parallel MIDI outputs, pitch-bend and mod wheels, and a flat-top surface designed to hold a computer keyboard and mouse pad. For those of you who think music is a real kicker, Fatar was showing the MP-1 MIDI pedalboard, a 13-pedal unit with programmable octave, MIDI channel, and program change command functions. Also new, the Studio 49 (four-octave) and Studio 61 (five-octave) keyboards (\$209.95 and \$329.95, respectively), a couple of bare-bones master controllers for the budget-minded performer.

The T-91 MIDI controller (price to be determined) comes from **Riday Systems**, named after company president and T-91 inventor, Rick Riday. As you might gather from the picture on page 97, this is not your father's key-

## Music Software!

No question too dumb!

Here's an easy way to figure out which software will help you get the most out of your MIDI setup: call the MIDI software experts at Soundware. Simply dial (800) 333-4554. Orders gladly taken at the same number.

### MACINTOSH

Performer  
Trax, Master Tracks Pro  
Notator Logic  
Music Shop  
Vision  
Cubase  
Deck 2, Metro  
Finale  
Finale Allegro  
Encore  
Music Time  
Mosaic  
Galaxy Plus Editors  
Unisyn

### MIDI Interfaces

MIDI Translator II  
Translator Pro  
Studio 3.4.5  
MIDI Express  
MIDI Time Piece II

### IBM PC

Cakewalk  
Cakewalk Professional Windows  
Max Pak  
Cubase  
Trax/Master Tracks Pro  
Sequencer Plus  
Micrologic  
Power Chords  
Band in a Box  
The Jammer  
Music Time  
Encore  
Finale/Music Prose  
Music Printer Plus  
Musicator GS/Windows  
The Copyist DTP  
Score  
Quick Score Deluxe

### MIDI Interfaces

PC MIDI Card  
MQX-32M  
Midi Engine 2Port/SE  
SCC-1  
MIDI Express PC  
V-22, V-24s, VP-11

### MIDI STARTER PACKAGES

#### IBM PC

Power Tracks Pro + PC MIDI Card  
Cubase Music Starter Pack  
Cakewalk Windows + MQX-32M

#### Macintosh

Cubase Music Starter Pack  
Opcode EZ Music Starter Kit

### Best Sellers

Cakewalk Windows/IBM	PC MIDI Card/IBM
Vision/MAC	MQX-32M/IBM
The Jammer/IBM	MIDI Express IBM/MAC
Finale/IBM/MAC	SCC-1/IBM
Encore/IBM/MAC	MIDI Quest/All
Performer/MAC	Band in a Box/All

## SOUNDWARE

Your MIDI Source

### SHIPPING

For foreign orders and Next-Day-Air, please call. For all others, add \$5 per item to cover UPS 2nd-Day-Air.

Call Soundware to order:  
(800) 333-4554

Good anywhere in the U.S. and Canada  
Monday thru Friday 9-5,  
Saturday 10-4 PST

FREE CATALOG AVAILABLE  
JUST WRITE OR CALL (800) 333-4554

### OUR POLICY

We accept VISA, Mastercard, and American Express with no added service charge. Your credit card will not be charged until we ship your order. Personal and company checks accepted. Please allow one week to clear. California residents please add local sales tax to your order.

©1994 Soundware Corporation, 200 Menlo Oaks Drive, Menlo Park, CA 94025 (415) 328-5773 FAX (415) 328-0611

# THE PERFECT PIANO SERIES

by W.D. Cookley



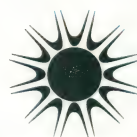
Featuring the beauty and subtlety of Steinway #496997 Concert Grand sampled on stage by piano artist & designer W.D. Cookley.

"...it sets a new standard of what a sampled piano should sound like."

G.K., Canada

"I've tried them all... this is by far the best out there"

T.C., Germany



Best of Show  
NAMM '94'

"I wanted a piano that would inspire me to create beautiful and expressive music... to feel the power of those 9' strings..."

W.D. Cookley

Volume 1  
Steinway & Kawai Pianos  
\$299

1-800-PIANO-25

(1-800-742-6625)

FAX: (407) 547-8205

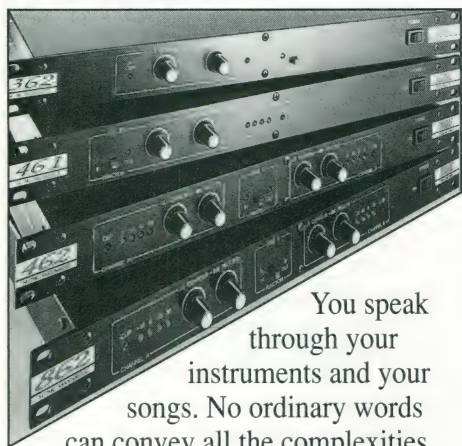


loops by Infinity





# You're A Musician. Your Language Is Music. BBE Is Your Essential New Tool!



You speak through your instruments and your songs. No ordinary words can convey all the complexities, the joy, the pain, the ideals and the dreams. Only your music can do that. But how does the music you hear in your head fight its way through a morass of electronics to reach the ears of your audience without losing some of your meaning? **BBE IS THE ANSWER!**

BBE will become your indispensable companion in the recording studio, the radio station, the club and concert stage. BBE will reveal the richness of your texture, the nuances, the subtleties, the inner meanings in your music. Your artistic presence will be more vivid, the colors in your sound more vibrant. The crystalline clarity of your music will be triumphantly unveiled!

**BBE**  
**Sound Inc.**

5500 Bolsa Ave., Suite 245  
Huntington Beach,  
California 92649  
Tel: 714-897-6766 Ext. 228

## NAMM '94: ON SOLID GROUND

board — at least not *our* father's. Some functions are, however, similar: velocity and aftertouch sensitivity, programmable presets, and the like. What's very different is the patented "Unified" keyboard, which allows you to use the identical fingering in all key signatures. (Do you suppose it also makes all your songs sound the same?)

Our last item isn't designed as a controller *per se*, but it does have some unique properties for controlling your music. Invented by Canadian musician Mark Daum, the Piantar is a combination guitar and keyboard. The guitar part is played hammer-on style, similar to the approach used for the Chapman Stick. The keyboard half is played, er, keyboard style. In the demo video we saw, performer Daum played in a mellow, low-key style that emphasized the pleasant, warm sound of the instrument. We'll keep you posted as development continues.

### DIGITAL PIANOS

**Yamaha** seemed to have a corner on buzzes at the show. For the pros, they had

the VL1. For the rich pros they had the P-500, a \$9,995 digital piano that now sits at the top of the company's popular Clavinova line. Described by Yamaha as the "ultimate live-performance digital piano," the P-500 features an 88-note weighted-action keyboard with aftertouch, 32-note polyphony, three pedals (including a half-pedaling function), 11 sampled instrument voices (including concert grand, rock piano, and FM piano), dual effects, and for recording purposes, balanced XLR audio outputs.

If the P-500 is a bit pricey for you, consider the YPP-45 Personal Piano (\$995). The instrument offers a 76-note keyboard with adjustable touch sensitivity, eight sampled instrument voices, stereo sound, and a built-in metronome.

No less than six new models were being offered by **Technics**. The SX-PR303, SX-PR305, and SX-PR307 feature Technics' new "Dynamic PCM," which adds realism to the piano sound by including the direct sound of the string being hit by the hammer as well as reflective and resonant sounds. Each model has an 88-note weighted-action keyboard, General MIDI soundset, built-in rhythm accompaniment, 16-track sequencer, and built-in reverb. The 303 and 305 are 32-note polyphonic; the top-of-the-line model 307 boasts

## The FIRST Macintosh NOTATION SOFTWARE with SCANNING!

*Nightingale*®

"For speed in entering notes and precision in placing symbols, *Nightingale* is exceptional. Combine this with how easy it is to start really working with the program, and you may have a copyist's dream come true, at a bargain price."

- Ernie Rideout,  
Keyboard Magazine



Temporal Acuity Products, Inc.  
300 - 120th Ave. N.E., Bldg 1  
Bellevue, WA 98005  
(800) 426-2673 • (206) 462-1007



64 notes of polyphony. The 76-note SX-PC100 and 88-note SX-PC200 feature 32-note polyphony, six instrument sounds, and built-in reverb. The 200 also offers a 4,000-note sequencer. The SX-PX106 is 64-note polyphonic and has an 88-note weighted keyboard, two footpedals, and a two-track 8,000-note sequencer. (Note: Technics does not publish list prices; check with your local dealer for pricing information.)

**Korg** introduced the C56G (Grand, \$6,350) and C56FP (French Provincial) Concert Grand pianos. The 32-note polyphonic instruments offer multiple sounds, including grand piano, brass, strings, and drums, have

a built-in 16-track sequencer, and feature a 200-watt tri-amp power system.

The new RG series instruments from **Kurzweil** were designed with affordability in mind. The RG-100 (no list price published) is 32-note polyphonic, and has an 88-note weighted keyboard, four sounds (piano, strings, electric piano, and pipe organ), digital reverb, and a built-in sequencer. The RG-200 (no list price published) adds four more sounds (grand piano II, vibes, harpsichord, and choir) and expands the effects and sequencer sections.

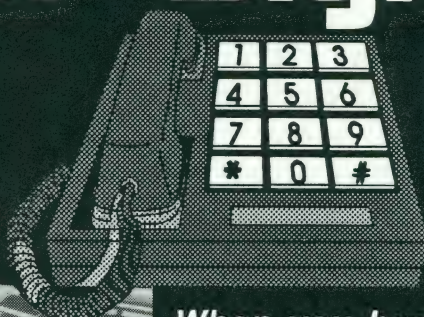
**Roland** added the KR-4700 and KR-5000 (no list prices available) to their "Intelligent" piano product line. The models offer 74 mu-

sic styles, 138 on-board sounds, and Standard MIDI File compatibility. The primary difference between the two models is in their amplification systems, with the 4700 model having a 50-watt system and the 5000 using an 80-watt system.

## SOFTWARE

Our favorite new software at the show comes to us from our overseas friends at **Steinberg** (a.k.a. **Steinberg/Jones** in the U.S.). Called ReCycle! (political correctness intended), the Mac-based program (\$199) is designed exclusively for manipulating sampled

# Analog or Digital MIXING KEYPAD



When you hear something new, do you want to get into the MIX? Try mixing up this number on your phone. You will hear the production values you have been missing.

## THOROUGHbred MUSIC

Same day shipping from our huge inventory.

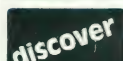
## The Nation's Music Department Store.

**ELECTRONICS, KEYBOARDS, AMPS, SOFTWARE, RACKS, CASES, DRUMS, GUITARS, AND ALL ACCESSORIES.**



# 1(800) 800-4654

IN FLORIDA DIAL (813) 885-9644 FAX: (813) 881-1896  
2204 E. HILLSBOROUGH AV. TAMPA, FLORIDA. 33610





## The Music Industry's Only Connection to The Internet... THE PAN NETWORK

CompuServe doesn't have it.  
GEne doesn't have it.  
Prodigy doesn't have it.  
America OnLine doesn't have it.

Only PAN gives you the advantages of *complete* and *unlimited* access to the Internet—the Global Electronic Superhighway.

Besides giving you access to thousands of MIDI song files, patches and samples, song lyrics, guitar tab files, MIDI software titles and free programs and utilities, PAN's Internet Advantage features over 2,600 Usenet newsgroups and direct connection to thousands of BBS's.

- MIDI Documentation
- Equipment Reviews
- Newsletters
- Radio Playlists & Charts
- Library of Congress
- Tour Support
- Artist Profiles
- New Record Releases
- Video and Film
- Pro Audio Network
- Music Research Digest
- Free Classifieds
- Employment Opportunities
- FTP, USENET, Gopher
- Virtual Reality
- How-to Articles & "FAQ's"
- Mailing Lists & "Listservs"
- Record Label Support

### PAN IS EASY TO USE!

To connect to PAN from any location:

**Direct Dial** - 617-576-0862

1. Press RETURN twice after you connect.

**Sprintnet** - call 800-877-5045 for local #

1. After CONNECT, type @D
2. Press RETURN 3 times
3. At the "@" prompt type C PAN

**Tymnet** - call 800-336-0149 for local #

1. After CONNECT, type the letter "o"
2. At "Please login", type PAN

**Internet** - telnet pan.com

**Overseas/PTT**

1. Connect to "NUA" 311061703093

### TO JOIN PAN

1. At the "Username" prompt, type PANJOIN
2. At "Authorization Code", type ADVANTAGE

**Rates as low as \$3.60/hour.**

**Free usage for database contributors**



The PAN Network  
P.O. Box 162  
Skiptack, PA 19474  
Tel: 215-584-0300  
Fax: 215-584-1038  
Internet: pan@pan.com

**THE INTERNET ADVANTAGE**

## NAMM '94: ON SOLID GROUND

grooves. You start by importing an audio file in Sound Designer I, II, or AIFF format. Re-Cycle! analyzes the file and breaks it into time slices based on the rhythm; time slices can then be manipulated independently. The program then assigns a MIDI note number to each slice and creates a key map and MIDI file based on the note numbers. Next step: downloading the keymap and samples — automatically — to your sampler. (Currently supported samplers include the Akai S-series and Digidesign's SampleCell I and II.) In case it hadn't dawned on you why you would want to use the program, here are just a few reasons: You could control the volume, timing, pitch, and output assignment of each groove element independently. Or replace, remove, and swap sounds within the groove. Or . . . or . . . or . . .

The same company's MusicStation (\$249) is a new sequencing package for Windows aimed at the "leisure" musician. The program features recording and editing functions, plus score editing and printing, digital audio playback, and a variety of on-board style templates

that allow the novice musician to quickly generate backing parts for their compositions. Also for the newcomer: Cubase starter packs for the Mac and PC (\$199 each). The kits include Cubase Lite sequencing software, a MIDI interface, on-line help, and a song disk. Atari Falcon 030 owners who love measuring things will want to take a look at AudioSpector (price to be determined), a software-based combination level meter, frequency-domain analyzer, phase correlator, and test-tone generator. For the rest of the world, Steinberg debuted version 2.0 of Cubase Score (price to be determined), which integrates a number of the Cubase functions, such as quantize and groove options, editors, tools, and synchronization, into the scoring environment. Also announced was the release of version 2.0 of Cubase Audio (\$999), the company's professional-level sequencer/audio recorder. New features include support for four to 16 tracks of digital audio, real-time EQ control, audio track scrubbing and delay, enhanced waveform display resolution, and a dedicated waveform editor.

If you've been considering the purchase of a Macintosh AV for your digital audio needs, the following might influence your decision: **Alaska Software** announced Digitrax

*Continued on page 149*

## RELEASE YOUR OWN CDs!

**500 CDs plus 500 Cassettes \$2,790**

with two-color inserts and chrome tape

*Ready in 3 weeks!*



Musicians! Why wait to get signed by a label? Control your destiny: Release your own major-label-quality CDs and cassettes affordably without sacrificing your artistic integrity or audio and graphic quality.

Package is complete and includes insert design, film, and two-color printing. No hidden costs! All you need to do is supply us with the master tape and photograph, and we'll do the rest.

"I just wanted to compliment you and your company on the fine work done on my *Departure* CD and cassette. I've heard only good things from my fans, who have been buying them so rapidly. I can't understand why I waited so long to release my own record."

—David Leonhardt

Call today for our FREE  
1994 full color catalog:  
**1-800-468-9353**



**DISC MAKERS**

1328 North Fourth Street, Philadelphia, PA 19122 • Outside USA (215) 232-4140 • FAX (215) 236-7763

AK01943



# THE BEST MUSIC EQUIPMENT CATALOG IN THE BUSINESS

# FREE

**MUSICIAN'S FRIEND GIVES YOU...**

## GREAT VALUE, SERVICE AND SELECTION

- 30-day money back guarantee
- Toll-Free ordering
- Full technical support and customer service
- Extra fast delivery
- Customer satisfaction
- Immediate up-to-the-minute inventory and price information
- Major credit cards accepted



## FULL COLOR CATALOG FEATURING...

- Detailed product descriptions
- In-depth reviews of new products
- Informative product articles
- A huge selection of quality brand name equipment including guitars, basses, amps, keyboards & MIDI, software, effects processors, recording equipment, PA gear, books, videos and tons more...

**YAMAHA ART DigiTech Ibanez**

**Marshall Roland BOSS**

**E-MU DiMarzio Seymour Duncan FURMAN**

**lexicon SAMSON NADU WASHBURN**

**Jackson Gibson Charvel DOD**

**KORG EV Epiphone Fostex**

**ADA CARVER TASCAM Fender**



For all of your  
music equipment needs  
call **1-503-772-5173**  
and ask for your **FREE** Catalog

### OUR PLEDGE

*The best values, shipped  
to your door*

☐ **YES!** Please rush me the next  
3 editions of Musician's Friend  
totally **FREE** of charge!

Now's your chance to join hundreds of thousands of satisfied  
musicians in receiving the #1 catalog, absolutely free!

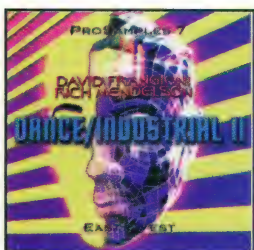
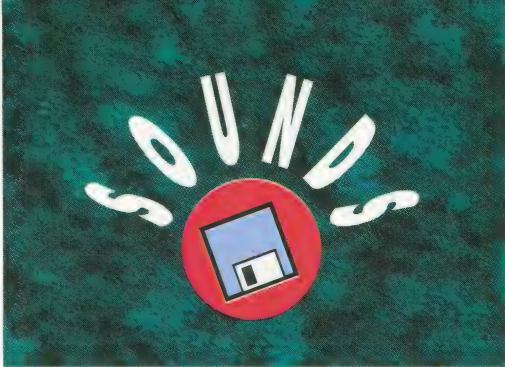
**Call 503 772-5173**, or mail in this coupon to Musician's Friend,  
P.O. Box 4520, Dept. 101, Medford, OR 97501.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_





## EAST-WEST DANCE/ INDUSTRIAL II

**SOUND QUALITY** ★★★★★  
**SELECTION** ★★★★★  
**BANG FOR THE BUCK** ★★★★★

**Overview:** Hip-hop meets techno in the land of loopin'. If you can't get down with this stuff, you just don't own a sampler.

**Contents:** 154 complete rhythm loops, plus the hundreds of individual samples or sub-loops used to play them, plus MIDI file versions of the loops.

**Retail Price:** \$99.95 (two audio CDs plus floppy disk).

**Contact:** East-West/Sound-Warehouse, 345 N. Maple Dr., Suite 277, Beverly Hills, CA 90210. (800) 833-8339, (310) 858-8797. Fax (310) 858-8795.

## SAMPLING CD: DANCE/INDUSTRIAL II

There are plenty of CDs out there with ready-made loops, and there are even more sample collections full of single percussion and effects sounds — but how many packages combine both? East-West's Dance/Industrial II is one such package. It's a two-CD set with 154 rhythm pattern loops, each on its own track; following each loop is a sample-by-sample breakdown of

the sounds used in the loop, each at its own index location. Included in the package is a floppy disk (your choice of Macintosh, PC, or Atari format) with a MIDI file for each loop. All you have to do is assign the sounds to the correct drum notes and you're ready to tweak, mix, and match. East-West offers CD-ROMs of the same material in Akai, Samplecell, and Roland formats for \$399.95, but this time we decided to go the do-it-yourself route.

The loops are heavy on the Euro/techno side, but the first half of disc two has a bunch of 8-bit, low-sample-rate, and otherwise down-and-dirty hip-hop loops ready for deconstruction. There are also quite a few noisy, clattering "heavy industrial" loops. The loops are great if you need something quick and ambient, but they're quite dense and built-up. You may prefer to look at them as demos of the samples that follow them, or as inspired starting points for your own tracks. Listening to the loops is a great way to audition multiple sounds, and it's very effective to page through the tracks as you look for specific sounds. A few of the sounds are redundant (how many 808 kicks could a person actually use in a lifetime?), but overall the variety is very impressive.

Most of the drum sounds are heavily processed, but if you look carefully you could probably find just about every drum hit you would need for most sampler applications. There's a nice balance between cheese-ball machine drums and more realistic drums, although the hi-

hats are quite similar and there are no crashes or rides to speak of. There are a few gorgeous toms with big reverbs and a few ethnic drums sprinkled here and there. Machines and mechanical sound effects abound, and the orgasmic groan makes its obligatory appearance. You'll also find a nice collection of party noises, funky guitar riffs, bass licks, canned drum fills, and turntable surface noises — a very useful cross-section.

Each loop contains from two to 24 samples; most average around ten. The accompanying booklet lists all of the samples, but it makes no distinction between the mono and the stereo samples; they're all presented in the stereo positions and levels of the final loop mix. It's possible, therefore, simply to sample each one in stereo and be ready to go. We chose to reconstruct one of the more challenging loops, with 18 sounds, but not all would fit into our Emax II's 2Mb memory. Reducing the sample rates of some of the sounds and sampling stereo sounds in mono (and then applying the appropriate pan positions) solved the problem.

*[Ed. Note: East-West tells us they recommend a minimum of 4Mb for serious sampling. They said that "the majority of the users of this product would have at least 8Mb." We chose the Emax for our review partly because we figured there are still musicians out there who are making the most of older samplers — many of which didn't allow for such a large memory upgrade. What do you think, readers? Is a 2Mb sampler a real-world test, or are we defending the fort after the Indians have gone home?]*

Once we had made all of the samples, we imported the MIDI file into a sequencer program. Belatedly, we discovered that it works better if you take a look at the MIDI file before starting to sample: We had to transpose our tracks in order to get them to correspond to the key layout we had chosen for our samples. Once we got that detail taken

care of, by golly, it worked! The loop came out of our sequencer exactly as on the record (minor level and pan discrepancies notwithstanding), and we could go in and futz with the groove to our heart's content.

The Dance/Industrial II collection is a rich and well-organized encyclopedia of loop sounds. If you're into building loops — especially of the hip-hop/industrial variety — this CD and a sampler will take you miles down the rhythm highway.

—Karl Coryat

## PRO-REC DANCE

**SOUND QUALITY** ★★★★★  
**MUSICAL USEFULNESS** ★★★★★  
**BANG FOR THE BUCK** ★★★★★

**Overview:** Lots of buzzy leads and pads, punchy basses, filter sweeps, and pulsing LFO effects.

**Contents:** 256 voices, 128 performances per disk.

**Retail Price:** \$39.90 per SY85 disk. Mac, PC, Atari downloader disks for TG500: \$39.90. Three-disk library available for the price of two disks. \$79.90 per ROM card.

**Contact:** Pro-Rec, 106 W. 13th St., Suite 13, New York, NY 10011; (212) 675-5606. Fax (212) 627-3148.

## YAMAHA SY85/TG500: DANCE

Though there's plenty to like on Pro-Rec's Supersynth and Filmscape disks for the SY85, their Dance collection takes top honors, so we'll narrow the focus to that one disk for this review. Even with the enormous number of sounds on the disk, the focus stays tight on Euro/techno and other electronic dance patches. You'll find no B-3 sounds (except as wickedly truncated "samples" assigned to a couple of keys in one drum kit), and only a few pseudo-saxes and brass, none of them very convincing. There aren't many piano sounds either, but one of



**SAVE  
69%**

# KEYBOARD.

☐ **Yes!** I want to subscribe and save 69% off the cover price. I get 2 YEARS FOR THE PRICE OF ONE, 24 monthly issues for only \$29.95!

☐ I prefer 12 issues for \$19.97, that's 59% off the cover price.

☐ **Bill Me**    ☐ **Payment Enclosed**

**Name** \_\_\_\_\_

**Address** \_\_\_\_\_

**City** \_\_\_\_\_

**State** \_\_\_\_\_ **Zip** \_\_\_\_\_

Price good in U.S. only. \*Canada/Mexico/International surface mail add \$15 per year. International air mail add \$40 per year. All non-U.S. orders must be prepaid in U.S. funds by International Money Order only. Please allow up to six weeks for delivery of first issue. \*Canadian GST included-Permit #124513540.



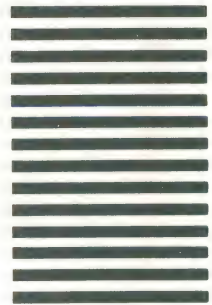


NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**  
FIRST CLASS MAIL PERMIT #1286 BOULDER, CO

POSTAGE WILL BE PAID BY ADDRESSEE

**KEYBOARD**  
**P.O. Box 50404**  
**Boulder, CO 80321-0404**





them, simply labelled Piano, is chorused to create a funky de-tune effect. It's ideal for short licks or a long solo over a jammin' beat.

Buzzing, hard-edged lead and pad sounds are Dance's strong suit. There are plenty of them — so many, in fact, that only insignificant details separate certain pairs of sounds. Of course, in a bank this large, some degree of overlap is inevitable. You'll also find a healthy share of stuff that's perfect for contrasting solo parts. SuperRez, for instance, is a muffled staccato sound that bursts into a gritty sustain when played hard. Better still is DistGuitr, a deadly metal guitar. With this sound, the right combination of notes and a judicious application of after-touch can unleash a death struggle between two cyborg tomcats. Absolutely stunning.

Dance offers more variety in its selection of pad sounds. The performance called LushPads has a fine steely shimmer, yet it's light enough to float above busy bass and drum parts. Other options are delightfully tactile. Playing chords with PianoPad is especially satisfying: We enjoyed bringing voices out and emphasizing nuances in soft left-hand chords while punching steely solo lines with a harder attack in the upper register. It would have been nice if Dance featured more pressure-sensitive patches, although it does pack plenty of velocity-responsive sounds.

We would have appreciated having more of the bass sounds in Dance bunched together for quick comparison, especially since some seem even more redundant than the lead synth sounds. But after searching a while, we found a workable number of bass patches tucked into various banks. In general, the synth basses seem more playable than the plucked or slapped basses. Some sounds, such as PluckHts, would work equally well for bass lines and upper-register sequences.

Problems are few and hard to find in this collection. A few

vocal pads stumble over awkward split points. We weren't knocked out by the basic drum sounds in the SY85, but we loved what Pro-Rec did with the percussion kits on DanceDr3, which assigns a full octave of orchestra hits to the top of the keyboard. And since SynPadds is clearly designed for sustained chords, the clicks and dropouts programmed into it seem to get in the way. Most annoying of all is the fact that the sleeve contains only two printed lists, on which 64 programs and 64 combinations — less than half of the sounds available on the disk — are given.

Ultimately, these nits don't matter that much. What counts is that Pro-Rec's Dance delivers what it promises — a comprehensive and frequently exciting arsenal of techno timbres. If dance grooves are your game, you won't need any other synthesizer sound source than this.

—Robert L. Doerschuk



# **BEST SERVICE BARBARA DENNERLEIN B-3 CD**

**SOUND QUALITY** ★★★★★  
**SELECTION** ★★★★★  
**BANG FOR THE BUCK** ★★★★★

**Overview:** B-3 notes and licks played by Barbara Dennerlein.

**Contents:** Ten variations of B-3 single notes, nine covering five octaves and one covering three octaves, all presented in half-step increments. Five octaves in half-step increments of second percussion normal and third percussion soft. Two octaves in half-steps of two B-3 basses. More than 350 jazz, rock, and techno licks. Three tracks of

data for Akai S1000/1100 (Hammond B-3 with two percussion, B-3 with slow Leslie, and B-3 rock, bass, and riffs). 92 tracks total, almost 74 minutes running time. Floppy disk for Atari computer containing Standard MIDI File examples.

**Retail Price:** \$99.95 (audio CD plus floppy disk).

**Contact:** Best Service, Siegesstr. 23, 8000 München 40, Germany. U.S. dist.: East-West/SoundWarehouse, 345 North Maple Dr., Suite 277, Beverly Hills, CA 90210. (800) 833-8339, (310) 858-8797. Fax (310) 858-8795.

## **SAMPLING CD: BARBARA DENNERLEIN B-3**

Don't have the chops to play those need-to-know Hammond B-3 licks laid out by Dave Amels on page 65? Or perhaps you're still in search of a killer B-3 sound for your sampler. Maybe you'd like new inspiration in the form of some B-3ish (and sometimes unB-3ish) licks that you can loop into techno or hip-hop riffs. In any case, Germany's Best Service might have the solution for you in the form of the Barbara Dennerlein B-3 sampling CD.

Dennerlein presents ten different variations on the B-3, along with two B-3 percussion tabs and two variations of B-3 bass sounds, all suitable for sampling one note at a time and building your own multisampled B-3 layout. In addition, the disc is chock-full of B-3 licks. If you own an Akai S1000 or S1100, you'll get a head start thanks to the final three tracks on the CD, which contain backup data for these machines for three of the organs. (To use this you'll need a CD player with a digital output.)

For those unfamiliar with Hammond terminology, "percussion" is a pitched attack transient to enhance the B-3's tone quality. On the original organ, you have a choice of adding either the second or third harmonic percussion, a pitch an octave or an octave and a fifth, respectively, above the fundamental. (For

intimate details about the B-3, see the Vintage Synths column in the Sept. '91 *Keyboard*, as well as the entire November '91 issue. You can find out more about the Leslie speaker in the Vintage Synths columns of April and June '90.)

About Dennerlein's organ variations: Included, in B-3 drawbar-speak, are 88 8000 000 (a Keith Emerson favorite) with no percussion, the same drawbar configuration with second percussion and vibrato, 88 8800 000 (preferred by Tom Coster and Booker T. Jones) without percussion, ditto with second percussion and slow Leslie, 88 8080 000 with second percussion, 88 8000 800 without percussion, 88 8008 000 with second percussion, 86 4323 468 with fast Leslie, and 88 8888 888 without percussion. A full five octaves of notes (in half-step increments) are provided for sampling these organs. Drawbar settings aren't given for the tenth organ variation, a raunchy, growly rock organ that ranges from C2 to E3. In addition to these sustained organ tone variations, five octaves of isolated percussion tones are provided, along with two octaves of two different bass pedal sounds (80 and 88). By layering one or the other percussion tones (or both, although the B-3 could only generate one at a time) with any of the sustained organ tones in your sampler, you can alter the organ sound for more variety. Granted, you won't get real-time control of the organ tone the way you would using the B-3's drawbars, but that's the way it is with samplers.

All of these organ variations

<b>KILLER</b>	★★★★★
<b>COOL</b>	★★★★★
<b>AVERAGE</b>	★★★
<b>HO-HUM</b>	★★
<b>BOGUS</b>	★



# Z PLANE

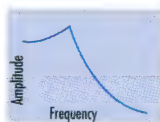
## The Future. Plane and Simple.

Does the world of electronic musical instruments seem like it's stuck in an endless rut? New bells. New whistles. Same old sound...

Well, if so, take E-mu's new Morpheus™ Z-Plane™ Synthesizer for a test drive. Sure, it's got bells and whistles in abundance. But it's got something else that sets it apart from the digital crowd: new sounds and expressive control that you've never experienced in a MIDI instrument.

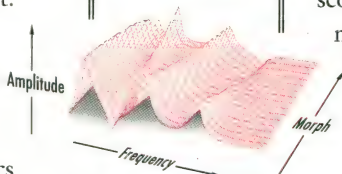
At the heart of Morpheus is E-mu's new Z-Plane Synthesis technology. Unlike the simple 2-or 4-pole filters of traditional synthesizers, Morpheus' 14-pole Z-Plane filters are capable of modeling virtually any resonant characteristics and then interpolating (or "morphing") between them in real time.

Imagine sending a saxophone through the body of a violin and then smoothly morphing it into a distortion guitar. Or send a piano through the resonances of the human vocal tract pronouncing a variety of vowels. Or sweep a synth pad with 32 polyphonic flangers. Or use a mod wheel to control the subtle timbral changes



### Traditional Synthesis

Single, 4-pole lowpass filter with resonance.



### Z-Plane Synthesis

Allows you to "morph" sounds through multi-dimensional, 14-pole filters.

that result from picking an acoustic guitar at different distances from the bridge. These are just hints of what Morpheus is all about.

And remember those bells and whistles? Morpheus gives you everything you need to harness its Z-Plane filters. Like a seriously enhanced version of our powerful MIDIPatch™ Modulation System. Like multi-segment function generators for microscopic sound-sculpting. Like a new Hyper-Preset mode that lets you split, layer and cross-switch between 16 presets at once—for sounds so thick you can swim in them.

And since Morpheus is from E-mu, all this power comes wrapped in the industry's clearest, most straightforward user interface. Add 32-voice polyphony, 16 part multi-timbral operation and dual stereo effects processors, and you've got the synthesizer to move your music into the next century.

Best of all, you won't have to wait for the next century. Check Morpheus out today at your local E-mu dealer. Where the future is now.



**MORPHEUS**  
Z-PLANE SYNTHESIZER



E-mu Systems, Inc. P.O. Box 660015, Scotts Valley, California 95067-0015 • 408-438-1921

U.K. E-mu Systems, Ltd., Suite 6, Adam Ferguson House, Eskmills Industrial Park, Musselburgh, EH21 7PQ • 44-031-653-6556

©1993 E-mu Systems, Inc. E-mu and E-mu Systems are registered trademarks and MIDIPatch, Morpheus, Z-Plane and the E-mu logo are trademarks of E-mu Systems, Inc. All other trademarks are property of their respective companies.



## SOUNDS

apparently were recorded from the same B-3. In a few cases, one or two notes in the scale are missing a component such as the fundamental or an overtone. This would pose a problem if you were sampling every single note, which would take lots of sampling memory. If you're going to sample every third or fourth note and map them across the keyboard, you can just skip the odd note. Another problem is the low-frequency noise that accompanies many of the organ tones. At original pitch, the noise isn't so noticeable, but it is when you pitch-shift the notes — and playing chords will make the noise louder.

Worse trouble could result when you sample the organ tones that were recorded with Leslie or vibrato. With slow Leslie, each organ note has a slightly different amplitude envelope due to the Leslie's slow rotation. Every B-3 note on the CD lasts about a second, which is shorter than the Leslie's slow spin rate. Samples of these notes can be a pain when you try to find smooth looping points because there simply isn't enough of the source note. Conversely, while the organs that were sampled with a fast Leslie or vibrato aren't as difficult to loop, notes that are pitch-shifted too far will sound ridiculous because of the change in the speed of the note's amplitude or pitch fluctuation. We really wish all the sets of organ samples had been recorded with no Leslie or vibrato, the way the 88 8080 000 and 88 8000 800 collections and the rock organ and bass pedals were. If you don't have a Leslie handy, though, you may be willing to put up with the sonic compromises in order to have access to those particular sounds.

Rather than being separated on the CD from other material, the organ scales are mixed in among sections of licks and riffs. Following a one-minute introductory demo (many more demos appear throughout the

CD), there are 16 tracks of licks entitled "Hot Stuff." Each track contains between seven and 14 different licks. Most of these sound like traditional Jimmy Smith-type licks as opposed to something you would hear on a Barbara Dennerlein recording. A few of the licks were recorded so hot that their peaks overloaded the recorder's inputs, but these are way in the minority. More problematical is the fact that there are no index codes embedded within the tracks, so you'll have to depend on pen, pad, and your CD player's search buttons to keep track of a lick's location during the sampling process.

Tracks 42-48 contain the "Far Outs" collection of 72 riffs and licks. These seem more representative of Dennerlein's own style than the other licks. Although one of our B-3-playing staff members was skeptical about the musical usefulness of this material, we found many of the riffs quite inspiring. Some would work running throughout a hip-hop or techno piece, others could be laid in here and there within a song for more variety. About half of the listings include tempo information, which is quite helpful for those who want to synchronize a sequencer with a looped riff. In some cases, riffs that don't have tempo information aren't really metric anyway — they're more like special effects. The riffs in track 45 are named by their key, which means you won't have to figure out the notes in order to play along with the looped riff. When you listen to the riffs, they seem clumsily truncated. However, they extend far enough beyond a musical segment (one or two measures) that when you loop them properly in your sampler they sound just fine.

The "Riffs & Licks" section (tracks 82-89) contains a hodgepodge of traditional B-3 meanderings and some chords with Leslie speed changes, as well as plenty of glissandos. All of the recordings on this CD were taken in stereo, but this is made

most obvious by the glisses that trail away from right to left or vice-versa.

It's difficult to believe that some of the outlandish events presented on this CD were actually created on a B-3. For example, the licks starting at 38 and 59 seconds of track 43 — simply entitled "Tech 17" and "Tech 19," respectively — sound like they came from a modular analog synth rather than a tone-wheel organ. And within the CD's final audio track (89), Dennerlein creates nine truly bizarre timbres by touching and tapping a sensitive tube within the organ, as well as turning the B-3 on and off, both with and without notes playing. Truth be told, though, there is one non-B-3 sound included on the CD: Chords played on a piano accompany organ on a cut from track 85.

Barbara Dennerlein's B-3 CD covers lots of territory. Whether you haven't been able to find decent B-3 samples for your sampler, you aren't into learning traditional B-3 licks, or you're ready to reel off some organ-based hip-hop wizardry, you should be satisfied with what she has to offer.

—Mark Vail



### HOLLYWOOD EDGE L.A. RIOT VOL. 1

**SOUND QUALITY\*** ★★  
**SELECTION** ★★★★★  
**BANG FOR THE BUCK** ★★★★★

*\*Many of the samples are intentionally laden with noise.*

**Overview:** Loads of live DJ performances. Hundreds of

loops, scratches, breaks, and transforms.

**Contents:** 73 tracks (each track has 3 to 10 individual selections).

**Retail Price:** \$99 (audio CD).

**Contact:** The Hollywood Edge, 7060 Hollywood Blvd., Suite 1120, Hollywood, CA 90028. (800) 292-3755.

### SAMPLING CD: L.A. RIOT VOL. 1

Its name might conjure images of police sirens, gunshots, breaking glass, and Rodney King footage, but that's not the focus of L.A. Riot Vol. 1. Producers Eric Cunningham and Chris Lang (a.k.a., Chronic Interactive) have journeyed "into the hood" and captured hundreds of loops, scratches, breaks, and transforms as performed by some of L.A.'s finest up-and-coming turntable talents: DJ Dre, Allywad, Al Fresh, Skil, Lis-10, Mann-e, and Xpando. The result is a gritty, grimy collection of grooves (and we mean that as a compliment).

The live DJ performances are across-the-board excellent. In nearly every case, the DJ's timing is rhythmically on the money. A DJ is, after all, part percussionist. The ability to manipulate a turntable with rhythmic precision isn't easy — try it yourself sometime.

Some of the loops aren't evenly spliced, but that's intentional, according to the producer. In hip-hop, jagged loops can be cool. Or is that "dope"? Whatever. What we do know is many of the scratches and transform effects are rhythmic gold mines. What's a transform? *In this case*, it's a stuttering on-off riff similar to the rapid-fire toggle-switch guitar technique Eddie Van Halen helped popularize.

While no single section jumps out at us as being substantially better than the others (they're all very good), Xpando's techno Construction Kit section is particularly noteworthy. It offers a variety of percussive analog synth riffs, bass lines, and more, all tailor-made for stacking

*Continued on page 118*



# Automatic Accompaniment has arrived – ...and just got better with Version 5 **BAND-IN-A-BOX™**

## INTELLIGENT SOFTWARE FOR IBM (DOS & WINDOWS), MAC & ATARI

Type in the chords to any song, choose the style you'd like and Band-in-a-Box does the rest...

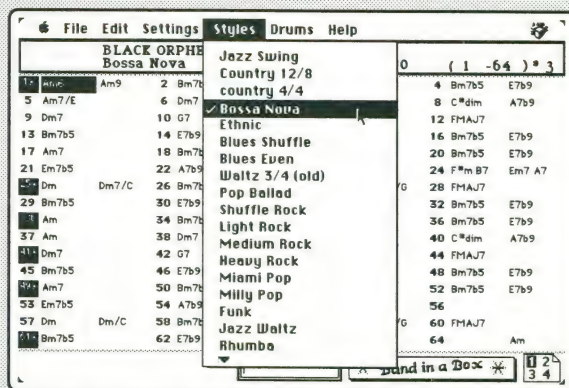
Automatically generating professional quality five instrument accompaniment of  
bass, drums, piano, guitar & strings in a wide variety of styles

### 24 Styles built in...

Jazz Swing • Bossa • Country • Ethnic • Blues Shuffle • Blues Straight Waltz  
Pop Ballad • Reggae • Shuffle Rock • Light Rock • Medium Rock • Heavy Rock  
Miami Sound • Milly Pop • Funk • Jazz Waltz • Rhumba • Cha Cha • Bouncy 12/8  
Irish Pop Ballad 12/8 • Country (triolet)

### Version 5: 2 more instruments + built-in sequencer...

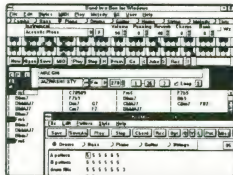
The built-in sequencer lets you record melodies (or buy our MIDI-FAKE-BOOK disks which include chords & melodies). Also make your own 5 instrument styles using the StyleMaker™ section of the program – or edit our styles to your tastes. Now there are 5 accompaniment instruments (including guitar/strings). General MIDI standard implementation (even for old synths). Plus 70 other new features!



### NEW! Band-in-a-Box Pro for Windows \$88

The award winning Band-in-a-Box automatic accompaniment program is now available for Windows 3.1. All of the features of the DOS version, plus much more including...

- The "Wizard" (intelligent playalong features)
- background playback in other programs
- support of all MultiMedia drivers (Roland MPU401, Soundblaster, MultiSound, AdLib, TG100, etc.)
- copy MidiFiles to Clipboard to paste into other Windows music programs
- onscreen toolbar, full mouse support
- fully featured Windows interface
- all files fully compatible with DOS, Mac & Atari versions!



#### UPGRADE OFFER FOR EXISTING BAND-IN-A-BOX USERS:

Basic upgrade to Band-in-a-Box Pro for Windows – \$29

Complete Upgrade including new 5 instrument styles disk #4 – \$49

**BONUS!!** Band-in-a-Box IBM version now includes BOTH the Windows AND DOS version for the same price!!

### STYLES DISK #4 (Mac/Atari/IBM) \$29

#### 34 Hot new styles for Band-in-a-Box

We've made our best styles disk ever, most utilizing 5 instruments at a time.

(bass/drum, piano, guitar and strings) This disk Supercharges your Band-in-a-Box program!!

#### 9 NEW JAZZ STYLES!

(Charleston, Dixieland, Fats Waller, Jazz Quintet, Jazz Fast, Lui Prim Style, Tango, Jaco 5, ChaCha 5)

#### 8 NEW COUNTRY STYLES!

(Chet, Cryin, Country Ballad, Country Contemporary, Floyd Piano, Ozark, Folk, J Cash 5)

#### 7 NEW POP STYLES!

(Breezin, Larry, Grover, Kladrman Piano, St. Elmo, Yesterday, Georgia Style, On BoardWalk)

#### 4 NEW "OLD POP" STYLES

(Supremes, "Sam Cook" Style, J B Goode, Fats D)

#### 6 NEW ETHNIC/MISC. STYLES

(Gumbo, Klezmer1, Klezmer2, March\_12, March\_16, Mozart)

### WE DIDN'T SAY IT... PC MAGAZINE DID!

"This amazing little program from PG MUSIC creates "music-minus-one" accompaniments for virtually any song any style. You simply type in the chords, pick a tempo and one of 24 styles, and the program creates nicely embellished chords, a bass part, and drums to be played on a MIDI synthesizer. Band-in-a-Box understands repeats, choruses and verses, and even varies the accompaniment, just as human musicians would. Peter Gannon, the author of the program makes no claim to artificial intelligence, but Band-in-a-Box is software that repeatedly surprises and delights you, especially in its jazz styles."

PC Magazine Jan. 15, 1991 – Technical Excellence Awards

— FINALIST —  
PC Magazine Award  
for Technical Excellence



AFTER HOURS / ENTERTAINMENT  
Band-in-a-Box  
PG Music

**DownBeat – the #1 Jazz Magazine says...**  
"Band-in-a-Box is the most significant contribution to Jazz Education since Jamey Abersold Records."

"Band-in-a-Box is an amazing program"

Keyboard Magazine Aug. 1992

"I am in awe. I didn't think that such an incredible program could even exist. This software is a dream come true."

PC Journal Sept. 1992

### Band-in-a-Box Prices

#### New customers

Band-in-a-Box Standard Edition (24 styles).....\$59

Band-in-a-Box PRO version (75 styles).....\$88

(BONUS!! Band-in-a-Box IBM version now includes BOTH the Windows AND DOS version for the same price!!)

#### Upgrades & add-ons

Upgrade or Crossgrade (Windows/DOS/MAC/ATARI).....\$29

("CrossGrades" are for users who need a version for a different type of computer)

Midi-FakeBook with melodies (100 songs on disk).....\$29

Styles Disk #2 (25 new styles for Version 5).....\$29

New! Styles Disk #4.....\$29

Any 2 of Above.....\$49

Any 3 of above.....\$59

(eg. Upgrade to Windows + Styles Disk #4 = \$49)

#### Requirements:

IBM-DOS: 640K, MIDI interface or soundcard (MPU401, SCC1, Midikur, SC-7, TG100 Yamaha C1, Voyetra VAPI, AdLib)

IBM-Windows 3.1: 2mb memory. Any MIDI interface or soundcard.

MACINTOSH: 2mb memory, system 6 or 7 (reduced version for 1mb available)

ATARI: 1040ST/STE/MEGA/TT (reduced version for 520 users available)

From PG Music... The makers of The Jazz Guitarist, Band-in-a-Box, PowerTracks, The Pianist

☎ Phone orders: 1-800-268-6272 or 1-905-528-2368 VISA/MC/AMEX/cheque/mo/po# Fax 1-905-628-2541  
(to hear recorded demo 1-905-528-2180)

PG Music Inc. 266 Elmwood Avenue Suite 111 Buffalo NY 14222



# 5 hot new software programs from PG Music... & great deals on Roland hardware bundled with software

## The Pianist™ (Windows, Mac, Atari) \$49

A MUSIC PROGRAM CONTAINING A HUGE COLLECTION OF OVER 200 OF THE WORLD'S MOST POPULAR CLASSICAL PIANO PIECES, PERFORMED BY WORLD CLASS CONCERT PIANISTS!

Plus... Music Trivia Game, "Guess the Song", Program Notes, Biographies, Music Dictionary (all on disk) & much more.

### PERFORMED BY CONCERT PIANISTS!

All the pieces have been recorded "in real time" by concert pianists on an 88 note weighted MIDI piano keyboard. They are never quantized or step recorded. All pieces are complete performances professionally performed, recorded & saved as Standard MIDI files. You therefore hear the music playing with CD-quality through your sound card or MIDI system.

### ALL YOUR FAVORITE MUSIC...

Moonlight Sonata, Sonata Pathétique, Minute Waltz, Claire de lune, Mephisto Waltz, Hungarian Rhapsody, Fantaisie Impromptu, Military Polonaise... and over 200 more !!!

### SEE THE MUSIC WITH ON-SCREEN KEYBOARD!

Play/Stop/Pause/Rewind/Tempo change/transposition/Volume/panning/patch changes & more.

### OUR CUSTOMERS LOVE THE PIANIST...

"Incredible... amazing... terrific... masterful... fabulous... love it... my favorite program!"



## NEW! The Jazz Guitarist™ \$49 (Windows, Mac, Atari)

THIS PROGRAM MAKES IT "TOO EASY" TO LEARN TO BE A GREAT JAZZ GUITAR PLAYER!

A music program containing a huge collection of over 60 jazz standards, played on MIDI guitar by top jazz/studio guitarist Oliver Gannon

### RECORDED IN REAL-TIME ON A MIDI GUITAR!

Hear the music with CD-quality through your sound card or MIDI system. Most pieces have bass/drums as well as guitar so you get a full sounding jazz trio for the tunes!



### LEARN TO BE A GREAT JAZZ GUITAR PLAYER!

On-screen fretboard shows you exactly what notes & chords are being played on the guitar. Slow down the performance or, better still, step through the music chord by chord, so you can learn every note as it's played!

### PLUS MANY MORE FEATURES...

- Jazz Trivia Game & Guess That Song Game, Program Notes, Biographies (all on disk)
- Over 60 Top Jazz Standards with Complete Guitar Arrangements
- Listen to the music while you work in other programs
- Special support for Roland GS or General MIDI Modules
- Standard MIDI files can be copied & used in other programs or presentations
- Use your existing sound card or MIDI synthesizer

## NEW! Music Printout!

## PowerTracks Pro™ \$29

SEQUENCER/NOTATION/PRINTING FOR WINDOWS (IBM)

"Solid sequencing at an unbelievable price" Electronic Musician Sept. 93

PowerTracks Pro 2.1 is a professional full featured MIDI sequencing, notation and printing program, and is so easy to use! And we include versions for Windows AND DOS, so you'll be able to use PowerTracks PRO on all of your machines!

### PRO RECORDING, PLAYBACK, SYNCH, EDIT & SYS-EX OPTIONS

48 tracks, real-time/punch record, sound-on-sound, MIDI File support, sync (SMPTe, MIDI Time Code, MIDI) edit (quantize/cut/ copy/ paste/undo/delete filters/ transpose), multi-port support, 480 ppq timebase, sys-ex-editor-librarian, patch names, banks & much more.

### MUSIC NOTATION

Enter/edit/display music in standard Music notation. Intelligent/automatic features such as: Correct beaming/grouping of notes/minimize rests option/ "Jazz Eighth notes" option (this automatically allows jazz swing eighth notes & triplets to be notated properly!!!). Reads in any MIDI File & displays it as notation!!

### MUSIC PRINTOUT (ON ANY PRINTER!!)

Print any track in standard music notation. Selectable staves per page, and bars per line. Selectable margins and paper size. Portrait or Landscape (sideways) printing. Titles, composer, style, copyright information. Make your own lead sheets! You can also print the piano roll window for even more detailed analysis of a track!

### DELUXE WINDOWS INTERFACE

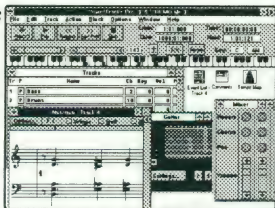
Multiple Windows - Music Notation, Staff Roll (piano roll), Event List, Tracks, Bars, Meter, Tempo, Piano keyboard, Guitar fretboard.

### AND MUCH MORE...

- Juke Box built in to play back sets of songs
- Comprehensive guitar support (on-screen fretboard, record/enter/edit/play guitar music)
- Built in mixer/sound editor for Roland Sound Canvas/SCC1/GS series.
- Comes with Pro quality MIDI files (piano, guitar, combo music by studio musicians)

POWERTRACKS FOR DOS VERSION INCLUDED FREE. Yes! We include the DOS version for free in the same package. NOTE: The DOS version doesn't support music notation, or other graphical features.

EXISTING POWERTRACKS USERS CAN UPGRADE TO POWERTRACKS PRO 2.1 FOR ONLY \$10.



## Sound Canvas Pro Editor/Librarian for Windows \$29

Mixing/editing/storage of EVERY feature on Sound Canvas & other Roland GS & GM modules

You'll never need to touch your Sound Canvas front panel or open the manual again! Edit/design new sounds, new scales, tunings... YOU CAN EDIT EVERYTHING!!! Also plays MIDI files (hear changes as you make them).

## Multi-MPU401 Driver for Windows \$19

- allows 8 music programs to use the same MPU401 at the same time!
- a "must have" driver for all MPU401 Windows users (Roland, Music Quest, CMS, etc.)
- easy to use, installs as a driver in Windows to replace your current MPU401 driver
- NEW! Allows inter-program communication!

The current MPU401 Driver for Windows only allows one music program to use the port at a time. You need to close down all music applications before running a new one. But the new "Multi MPU401 Driver" allows up to 8 programs to use the MPU401 at the same time. So you can use all of your music programs at the same time.

## Roland SCC1 Card \$389

Incredible Low Price • PowerTracks Pro Sequencer & SoundCanvas Pro Editor included!

The Roland SCC1 is a half sized card that contains a built in General MIDI (GS) compatible synthesizer, MPU401 MIDI interface, & RCA audio output to stereo or headphones. The state-of-the-art quality of the sounds on this card makes it the hottest piece of MIDI hardware on the market! We use the SCC1 card in all of our computers, & make all of our Band-in-a-Box songs & styles using the SCC1 card. Band-in-a-Box directly supports all features on the card (reverb/chorus/volume/panning/patch etc.). SCC1 makes Band-in-a-Box sound like a "live band"!

## Roland SC-7 General MIDI Module \$389

128 General MIDI Sounds • Built-in MIDI interface connects to your PC or Notebook  
Includes PowerTracks Pro Sequencer, SoundCanvas Pro Editor & Windows Driver for SC-7!

Roland's newest product for IBM, MAC or ATARI computers. This external module has the 128 General MIDI sounds (same sound quality as the Sound Canvas/SCC1), and also a direct connection to the serial port of your PC or MAC. This means that you can use the SC-7 with your notebook/laptop and don't require a MIDI interface!

### REQUIREMENTS FOR ANY OF THE PROGRAMS:

IBM (DOS versions) require 640K, MPU401/  
MIDIATOR/SoundBlaster/SC-7, TG100

WINDOWS versions require 2mb RAM  
+ any soundcard or MIDI interface

MACINTOSH versions require 2mb RAM, system 6 or 7

ATARI versions require 1040ST or better

### PHONE ORDERS:

1-800-268-6272 or 905-528-2368

VISA/MC/AMEX/cheque/mo/po# Fax 905-628-2541

Add \$5.00 Shipping/Handling per order (\$10 outside USA/Canada)

Recorded Demo 905-528-2180

**PG Music Inc.**

266 Elmwood Avenue, Suite 111  
Buffalo NY 14222

**30 DAY UNCONDITIONAL MONEY BACK GUARANTEE ON ALL PRODUCTS**



## SOUNDS

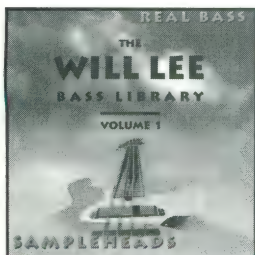
Continued from page 115

on top of each other and layering into a track. Some skeptics might question the decision to include techno material on a hip-hop/house collection, but we found that much of Xpando's material is easily integratable with the disc's other loops. Call it techno-hop. We had fun with it, which is the point producer Eric Cunningham wants to make clear: "Forget rules. Just fuck the stuff up."

The disc's formatting is excellent. On many of the sections, three-bar loop patterns are provided; the first two bars feature live DJ work over a loop, and the third bar is the original loop only. Whenever appropriate, tempos are listed. In all, there are approximately 700 performances to choose from. Thankfully, each is separately indexed within its respective track.

Hip-hop loop CDs are plentiful these days, but L.A. Riot Vol. 1 is a standout (thanks largely to the live DJ performances). Many artists prefer to create their own stuff from scratch, but heck, who says you can't buy a disc such as this and slice and dice it into your own unrecognizable creations? That's what we plan to do.

—Greg Rule



### SAMPLEHEADS WILL LEE BASS LIBRARY, VOL. I

**SOUND QUALITY** ★★★★★  
**SELECTION** ★★★★★  
**BANG FOR THE BUCK** ★★★★★

**Overview:** Single bass guitar

notes played on various basses with various picking styles.

**Contents:** 1963 Fender Precision: sustained f, sustained mf, pulls, long thumbs, thumbs, mutes, drops, slides, "x"-notes & effects, harmonics. Hofner 500-1 "Beatle" Bass: muted & sustained, slides & drops, "x"-notes. Martin Acoustic: sustained, "x"-notes & pats, drops, strings, body taps. Hamer 12-string: sustained f, sustained mf, short picked, drops, "x"-notes, harmonics. Sadowsky 5-string: sustained f, sustained mf, muted, drops, "x"-notes, harmonics. APX 4-string: pick sustained, pick muted, "x"-notes & stops, slides & drops, strums, output buzz. Plus riffs at 120 bpm, 102 bpm, 78 bpm, 91 bpm, and 105 bpm.

**Retail Price:** \$99.95  
(audio CD).

**Contact:** Sampleheads, 276 Riverside Dr., New York, NY 10025. (212) 866-1533. Fax: (212) 678-2577. Exclusive U.S. distributor: East-West/SoundWarehouse, 345 North Maple Dr., Suite 277, Beverly Hills, CA 90210. (800) 833-8339, (310) 858-8797. Fax (310) 858-8795.

### SAMPLING CD: WILL LEE BASS LIBRARY, VOL. I

When most people think of Will Lee's bass playing, what comes to mind is some of the funkier, in-the-pocket, outrageous grooves that have ever been played. Let's be up front about it, though: That's not what this audio CD from Sampleheads is about. What Will and the Sampleheads have set out to do is provide bass samples that actually sound like the guitars themselves, rather than a cleaned-up version ready to lay out on the keyboard as a synth-oriented patch. They have intentionally left the initial attack transients in each sample, and you can hear the difference in the sound as Will moves up the neck and goes from string to

string. If there were small fret buzzes, Will left them in.

Six basses are represented here, each with a highly characteristic sound. They've been recorded chromatically, beginning with the range extended down to low C, and continuing up to D at the 19th fret. The exceptions are the Sadowsky 5-string, which has a low B string, and the Hamer 12-string and the APX, which both go down just to the standard low E. Although Will was careful to record at fairly consistent dynamic levels, there are still lots of excellent variations from tone to tone due to the location on the neck, the string, the pickup, and fret noise. Not only does this give you a clear picture of the personality of these particular instruments, it also lets you choose the timbres of the notes with which to build your bass patches: A bright one with a little buzz, or a duller one from up the neck. Open strings are sampled for each bass as well.

Will has included the most idiomatic sounds of each instrument, in addition to the basic sustained and articulated tones. On all basses, this includes slides, drops, and "x"-notes, which are completely muted notes. The Precision is the one he chose for thumping and popping. On the Martin Acoustic, string pats and taps on the body of the instrument are included. On the APX, Will plays strums across all four strings and plays with a pick. Techniques that would not show off an instrument to its best advantage have been excluded; mercifully, there are no thumps and pops on the Hofner or the Hamer 12-string.

The basic notes are consistent as far as dynamics and articulations go, but compared to the sound you're used to hearing when Will plays, they seem clinical. Even with the occasional buzzes, and tone variations due to neck, string, and pickup factors, the sounds don't have much attitude.

On the other hand, there's plenty of attitude in the Will-

Loops. These are 53 short riffs and licks (usually two to four seconds long) in a variety of tempi and keys that show Will at his best. On several, he brings out an envelope follower, which sounds more or less like a wah-wah pedal, for some classic funky grooves. Not intended for looping, these licks could be dropped into a track here and there, but since the tone and attacks are so different from the regular sampled basses, it may be difficult to match the sound with the rest of the track. Not to mention time-compressing and pitch-shifting the riff to make it fit your tempo and key. If that's a problem for you, you can sample just those notes from the riffs that really have what you want, and build a patch from that. At the very least, as Will says in the 20-page booklet that comes with the disc, the riffs are good for inspiration.

The disc is well-organized, with each track consisting of all the recordings of a particular articulation for a single bass. Within each track, index numbers are provided for every octave, and the accompanying booklet gives the accurate starting times for each note. Durations would have been helpful, but on the other hand, it doesn't take too long to figure out that each sustained note is about four seconds long, enough to find a decent loop. The WillLoops are grouped by tempo, and within each of these five tracks there are a variety of licks in several keys. The booklet also provides a brief commentary by Will on each bass.

This disc is packed with 74 minutes worth of great bass sounds. You'll still have to do some work with your sampler if you want your tracks to sound like Will Lee dropped by to play on the session, but the raw materials are ready when you are — and we're told that CD-ROMs of the library, with the bass notes looped and mapped, will be available by the time you read this.

—Ernie Rideout ■





# 100 Reasons to Own a Quadraverb

1. It's the all-time classic reverb
2. It's fully programmable
3. Nobody tries to mix without it
4. I already own 3 and need 1 more
5. Everybody I know has one
6. Stereo in and Stereo out
7. Incredible MIDI implementation
8. Does up to 5 effects at the same time
9. Incredibly quiet
10. Great Dynamic range
11. Vocals sound incredible with Quadraverb
12. My guitar gently weeps
13. My girlfriend won't let me mix without it
14. My boyfriend won't let me mix without it
15. My producer won't let me mix without it
16. It works as well on stage as in the studio
17. 16 Bit Linear conversion
18. It's easy to program
19. It's easy to hook up
20. It works great in my MIDI system
21. It works great in my guitar rack
22. It works great with my bass rig
23. My flute sounds better through it
24. 20Hz to 20kHz Bandwidth
25. 127 MIDI sources can modulate any of 57 parameters
26. Works great in any country
27. You can take it on cruise ships
28. Everybody in Hollywood thinks it's cool
29. They use it back East
30. They use it out West
31. The North and South think it's great
32. Affordable enough for demos
33. Perfect for masters
34. It will be with you throughout your career
35. Those cute buttons with the little lights
36. Pressure sensitive programming buttons!!
37. The chorus is unreal
38. Reverb + chorus Programs are awesome
39. Pro engineers can't believe it's so inexpensive
40. They've got one in every room where I rehearse
41. I need one in my rack and one at home
42. The vocals stunk until I added the Quadraverb
43. Instant vocal doubling + chorus + reverb + eq
44. My guitar finally has a voice
45. 20 Bit processing
46. Incredible resolution for perfect reverb tails
47. It sings
48. Fills in the cracks of my keyboard
49. It's like a synthesizer for processing
50. There's no better reverb
51. The multitaps are unbelievable
52. You can delay up to 1.5 seconds
53. With everything on, there's still 800ms of delay
54. The price is unbelievable
55. All Alesis reverbs are great
56. It makes my drum machine sound real
57. It was the finishing touch on my demo
58. ...and my demo got me a deal
59. It's great to borrow, but better to own
60. Late at night under headphones I leave the planet
61. My mixes sound like movies
62. My speakers sound bigger
63. Close your eyes and you're there
64. For a successful music career
65. For birthdays
66. For Christmas
67. The auto-panner is great
68. Michelangelo would have used one
69. It gives me new keyboard sounds for free
70. It's so musical sounding
71. It's as wet as you can get
72. Use as much as you like
73. The resonators are great for guitar
74. The ring modulators are great for sci-fi
75. The sampling is a cool convenience
76. You can automate parts of your mix
77. It's a necessity
78. The specs are great
79. It makes my ears feel better
80. It makes A & R departments hear better
81. I'd be lost without it
82. I don't need it at the beach...but I might
83. It's the first thing ON in my studio
84. It's the last thing OFF
85. I love Alesis
86. Alesis loves me
87. It does 24 million instructions per second
88. It does -10
89. It does +4
90. It handles +20 peaks
91. The 32 character backlit LCD display
92. It only weighs 4.5 pounds
93. You can program advance with a footswitch
94. The graphic eq
95. The parametric eq
96. Programmable panning
97. The flanger
98. The phase shifter
99. It looks great in a rack
100. It's the all-time classic reverb

Call 1-800-5-ALESIS for more information and more reasons to own a Quadraverb

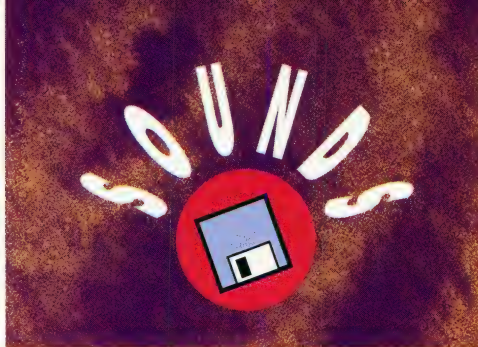
Alesis Corporation 3630 Holdrege Avenue Los Angeles CA 90016





# MIROSLAV VITOUS SYMPHONIC ORCHESTRA SAMPLES

CD-ROM LIBRARY



By Jim Aikin

**I**F IT ABSOLUTELY, POSITIVELY HAS TO sound like a real orchestra, the next question is, what's your budget? Not enough to hire 80 players for a session? The next best thing is probably a sampler and a stack of CD-ROMs. Not just any CD-ROMs, though. They have to be superbly recorded. You'll need a full complement of orchestral instruments in a variety of articulations, preferably played by professionals. The multisamples should be mapped with lots of different samples

across the keyboard, both to prevent munchkinization and to minimize the robotic effect that becomes audible when you play a scale and hear the same sample triggering over and over.

Sound like a tall order? Not if you've got a good sampler — preferably loaded with at least 32Mb of RAM — and the Miroslav Vitous Symphonic Orchestra Samples. These four CD-ROMs are jam-packed with exquisitely recorded instrumental sounds, all performed by professional instrumentalists from a major European

symphony and guided onto disc under the watchful eye (and ear) of jazz bassist Miroslav Vitous. The discs are available for Digidesign SampleCell and SampleCell II, the E-mu Emulator IIIx family, the Akai S1000/3000 family, and the Roland S-700 line. (We auditioned the SampleCell versions.)

If you demand quality, you have to be prepared to pay for it. At \$3,495 for a mere four CD-ROM discs, these puppies are not likely to show up in too many swap meets or used record bins, not before the end of the century. And after shelling out the shekels, you'll have to spend some time getting to know the contents of the discs and then working with it in order to achieve pro-quality results. A thorough grounding in how to write idiomatically for orchestra wouldn't hurt, either. Spectacular realism is possible with this library, though, if you're willing to break a sweat.

**Overview.** The Vitous library consists of four discs: String Ensembles, Woodwind & Brass Ensembles, and Solo Instruments I and II. (For exact contents, see the box at left) Each acoustic instrument appears in a number of different sampled "instruments," which vary in memory size and musical articulation. Many selections are available in either stereo or mono, and some are available in range-limited versions as well (the top half of the violin range, for example) to make it easier for users to optimize their memory allocation. The booklet that accompanies each CD tells exactly how much memory each instrument takes up; the smallest, the pizzicato and short staccato instruments, are less than 1Mb, while the largest are more than 8Mb.

Typically, you have a choice for each acoustic instrument of long notes, medium-length notes, and staccato notes. String section tremolandi and pizzicati are also included, along with a few other miscellaneous items that might be useful once in a while. The medium-length string notes are referred to in the literature that comes with the CDs as *détaché*, which is correct terminology, but the similar wind notes are referred to as *portamento* — usually a term that refers to a pitch slide. Possibly there was some linguistic confusion; "portato" is a term for medium-length articulations, but it's a string term, not a wind term. In any event, the "portamento" sampled notes in the library don't change pitch, so we'll call them *portato*. (You say *tormato*, we'll say *portato*.)

The concern with realism is taken to an extreme in the solo violin pizzicato instruments. Since memory usage isn't a big issue with such short notes, virtually every note across the keyboard is a separate sample. As a result, the faint ringing of the low G string only undergoes, at most, a half-step of transposition on a few isolated notes. Also, the low G itself is sampled open, without vibrato. Ahh, wonderful! (Too bad they didn't do the same thing on the bowed cello's low C. The sample was taken at C#, and has vibrato.)

## VITOUS SYMPHONIC ORCHESTRA SAMPLES: CONTENTS

**Solo Instruments I:** *Bass clarinet:* long m, long st, det m, det m fast, det st, det st fast, stacc m, stacc st. *Bassoon:* long m, det 0.5 sec st, det 2.0 sec st, stacc st. *Bass trombone:* ff st, long m, long st, stacc st. *Clarinet:* long m, long st, det m, det st, stacc st. *Contrabassoon:* long m, long st, stacc m, stacc st. *Trombone:* long m, long st, det m, det st, stacc m, stacc st. *Trumpet:* long m, long st, det m, det m short, det st, det st short, stacc m, stacc m fast, stacc st, stacc st fast, stacc st sharp. *Viola:* det st, det st short, long m, long st dark, long st fast, long st 2, pizz st, stacc st, trem m. *Cello:* det m, det st, det st dark, det st short, long m, long m w/ broader tuning, pizz m, pizz st, stacc m, stacc st, trem m.

**Solo Instruments II:** *Alto flute:* long m, long st, long non-vibrato m, det m, det st, stacc m, stacc st. *Contrabass:* det m, det st, long m, pizz st, pizz st short, stacc st, trem m. *English horn:* det m, det st, stacc m, stacc st. *Flute:* long m, long st, long non-vibrato m, long non-vibrato st, det 1.5 sec m, det 0.5 sec st, det 1.5 sec st, stacc m, stacc st. *French horn:* long f m, long f st, long ff m, long ff st, long m, long st, det m (two versions), det st (two versions), stacc, stacc fast. *Oboe:* long m, long st, det m (two versions), det st (two versions), det st fast, stacc m, stacc st. *Piccolo:* long m, long st, long non-vibrato m, long non-vibrato st, det 0.5 sec m, det 0.5 sec st, det 1 sec m, det 1 sec st, stacc st. *Tuba:* long m, long st, det m, det st, stacc st. *Violin:* det st sharp, det st sharp fast, det st short, long m, long st, pizz, pizz mute, spiccato, stacc (two versions); gliss down whole-step, gliss down half-step, trills, miscellaneous two-note figures and spiccato runs (last four items don't cover complete keyboard range).

**String Ensembles:** *Violin section:* det st long, det st short, det st short fast, long m, long m fast, long m large 1, long m large 2, soft m, soft m fast, soft st light, soft st light fast, long st large (two versions), long st large w/ broader tuning, long st large fast (two versions), long st light (two versions), long stereo light fast (two versions), pizz st, pizz st "2x (studio)," stacc st, trem m, trem st. *Viola section:* det m, det st, long m, long m fast, long st, long st fast, pizz st, stacc st, trem m. *Cello section:* det m, det m fast, det st, det st fast, long m, long m fast, long st, long st fast, pizz m, pizz st, stacc m, stacc st, trem m, trem st. *Bass section:* det m, det st, long m, long m fast, long st, long st fast, pizz m, pizz st, stacc m, stacc st, trem m, trem st.

**Woodwind & Brass Ensembles:** *Bassoons:* long m, long st, det st, stacc st. *Clarinets:* long m (two versions), long stereo (two versions), det st, stacc st, stacc short. *Flutes:* long m, long st, det m, det st, stacc m, stacc st. *French horns:* long ff m, long ff st, long m, long st, det st, stacc st. *Oboes:* long m, long st, det m, det st, stacc st. *Trombones:* long ff m, long m, long st, det m, det st, stacc st. *Trumpets:* long m, long st, det 0.5 sec st, det 1.2 sec m, det 1.2 sec st, det 3 sec m, det 3 sec st, stacc 0.1 sec st, stacc 0.3 sec st.

**Abbreviations:** f (forte), ff (fortissimo), m (mono), st (stereo), det (*détaché*/portato), stacc (staccato), trem (tremolando), fast (faster attack). Note: Some of the instruments in the list above are provided in larger and smaller memory versions.



*Stokowski did it the hard way, by waving a stick at a bunch of guys wearing tuxedos. Now you can have a full complement of symphony players in a CD-ROM drive with the Miroslav Vitous Symphonic Orchestra Samples.*



With so many great sounds, it's tough to single out a few for special mention. Among our many favorites were the gutty solo cello tremolando, the bowed bass, the solo clarinet, the rich-bodied French horn section, and the warm, solid solo flute. The wind section instruments, by the way, are recorded with three players playing a unison — four in the case of the French horns — an ideal lineup for a forte orchestral ensemble. If you need a lighter ensemble or a solo line, the solo instruments discs will provide the necessary material.

In the SampleCell version of the library, MIDI velocity is routed to loudness in a pleasing, usable manner. There are no velocity crossfades or cross-switches, however.

The big surprise for us was that none of the samples in the library are looped. Of course, it could be argued that real orchestral sounds aren't looped either. Real wind players need to breathe, and real string players at least have to change their bow direction, though a good player can disguise the sound of this pretty effectively. Also, in the case of wind instruments, the let-off of a tone has a characteristic sound that can't be emulated by an envelope generator.

We'll buy that argument in the case of wind samples, but it seems to us that the string section samples, at least, ought to be looped. We're told that a new version of the library is being prepared in which some of the instruments will be looped — highly desirable, for several reasons. A string section can create a continuous sound if the players stagger their bow changes. Also, film scoring sometimes demands quite lengthy sustained string beds — a 30-second pedal tone in basses and cello, for example. This effect is difficult to

achieve with the version of the Vitous library that we auditioned. Overlapping two notes of the same pitch will get you partway there, but there's still some discontinuity in the sound.

**Getting to the Music.** A ten-page booklet inserted in each CD gives some suggestions on how to make the best use of the library. For realistic part playing, this booklet recommends

allocating three MIDI channels in the sequencer to each "instrument." After recording the part into the sequencer using, perhaps, medium notes, you'll need to copy the part to three tracks and use the sequencer's editing environment to strip out notes from each track, so that the first track contains only the shortest notes, the second track the medium-length

## PROS & CONS

**Pros:** Stunning sonic realism. Generous number of samples per multisample. Long sustained samples.

**Cons:** No loops. Limited number of articulations and timbres per instrument. Expensive.

**Bottom Line:** Is it real, or is it Vitous?

## MIROSLAV VITOUS SYMPHONIC ORCHESTRA SAMPLES

**Description:** CD-ROM library (four discs).

**Available For:** Digidesign SampleCell I & II, Akai S1000/3000 series (compatible with Kurzweil K2000), E-mu E11x series, Roland S-700 series.

**Suggested Retail Prices:** \$3,495 for the four-disc set. String Ensembles disc: \$1,495. Woodwind & Brass Ensembles disc: \$795. Solo Instruments I & II discs: \$795 each. Violin Ensembles (contains only the violin sounds from the String Ensembles disc) available separately for \$695.

**Contact:** U.S. dist. by InVision Interactive, 2445 Faber Place, Suite 102, Palo Alto, CA 94303. (415) 812-7380, fax (415) 812-7386. *England:* Time & Space, P.O. Box 306, Berkhamstead, Herts, HP4 3EP, England. 0442-870681, fax 0442-877266. *France:* Everglades, 14 bis Rue du 8 Mai 1945, 94350 Villiers Sur Marne, France. 49-410083, fax 49-308236. *Germany:* Best Service, Siegesstrasse 23, 80802 Munich, Germany. 089-345026, fax 089-397396. *Japan:* Suite 602, Rumon-hiro, 1-16-3 Hiro Shibuya, Tokyo 150, Japan.



It's  
got

# POWER

It's *Simple* to use

It feels good  
and affordable

## POWER

Program versatility is what today's musician wants and it's built into the Studio 900. You are fully in command of program changes, bank select, Midi channel assignment and transpose modes providing control over an infinite array of sound sources. Pitch and a programmable wheel with 127 control functions makes volume, pan, after touch, pitch and modulation changes a breeze.

## Simple

It's easy to play too! You will be having fun creating today's music right out of the box. The icons and symbols are an integral part of the keyboard design providing fast learning and quick response. We have made it simple so you don't have to be a rocket scientist.

## feels good

The minute you strike a chord, you'll know this instrument will perform even for the most sensitive musicians. Full 88 weighted keys with hammer action that are velocity sensitive give crescendo a new meaning.

## affordable

Fatar technology not only built great features and superb action into the "Studio 900" but affordability as well. You will be pleasantly surprised at the modest price and how easy it is to own one.



Available with road case

# FATAR STUDIO 900

For a full color catalog send only \$2.00 for postage and handling to: Music Industries  
99 Tulip Avenue  
Floral Park, NY 11001  
Call: (516) 352-4110 Fax (516) 352-0754  
for your nearest Fatar Dealer



## VITOUS ORCHESTRA SAMPLES

notes, and so on.

In our trial runs, this technique worked very well, but as with any other form of music-making, you get out of it what you put into it. We found that we had to tweak the velocities of certain notes, because the staccato samples weren't always at the same perceived volume as the legato notes. Making minute adjustments in note length was also necessary to create a firmer impression of phrasing. Don't misunderstand — it's not a matter of covering up deficiencies in the samples, but rather of creating a convincing aural illusion. All we're saying is, don't expect to bang your hands down on a few keyboard chords and get instant Big League Philharmonic.

**You Can Tell It's a Swell.** To record all of the material that a composer might conceivably call for and prepare it for a CD-ROM library would take forever, and the library would cost more than hiring an orchestra. Even if we ignore specialized items like mutes, flutter-tonguing, and *sul ponticello*, none of which are to be found in the Vitous library, there are still dozens of ways to articulate a single note on an acoustic instrument. So hard choices have to be made. The types of articulations chosen by a sound developer will always work better for some pieces of music than for others.

Having said all that, we wonder whether the right choice was made with the long notes in the Vitous library. Most of them start with a gentle mezzo-forte or mezzo-piano and then build to a full forte with deepening vibrato. This is exactly what you'd expect a well-trained classical player to do if you turned on the tape deck and said, "Play me a sustained single note." It's what they call a well-rounded tone. This has a good side and a bad side. The good side is that these long notes have an *espressivo* quality that you don't often hear coming from a sampler. The difficulty is that when you hocket these well-rounded tones with the short notes, using the sequencing technique we described above, the gentleness of the long-note attacks doesn't always make for an impression of a unified line.

Some sampler users might prefer to have a set of long tones that attacked fairly aggressively and were fairly uniform in intensity throughout. These tones would be more adaptable to a variety of musical lines, and they'd be easier to loop as well. The long notes in the section French horns and bassoons, which sustain at a constant volume, are powerful performances.

**The Devil Is in the Details.** We hate coming off as negative, or as nitpickers, but in a library of this complexity, with about 900 individual samples, there are bound to be a few clinkers. The solo trumpet portato samples have a pronounced room ambience not present in any other solo instrument. (Several of the brass section unisons also have ambience, but it sounds fine in that context.) One of our staffers, who has worked closely with bass-clef wind instruments for years, commented that the solo trombone and tuba seem fairly anemic, with sluggish attacks and some vibrato.

*Continued*

## ATTENTION MUSIC STORE OWNERS, EQUIPMENT MANUFACTURERS AND SUPPLIERS



### INCREASE SALES AND CREATE NEW CUSTOMERS.

Show thousands of serious and *aspiring* musicians what you've got by exhibiting at the biggest music show ever to hit your area! Suppliers and dealer exhibits, workshops, product demos by top clinicians, and more. Dealers, ask about our special dealer promotion package worth \$600! Join the growing list of exhibitors.

### RESERVE YOUR BOOTH TODAY!

#### BOSTON

Hynes Center  
SEPT. 10-11

#### SAN JOSE

Convention Center  
NOV. 5-6

#### DALLAS

InfoMart  
DEC. 3-4

For exhibitor information call Roger Mitchell: (214) 419-7862

THE NATIONAL

## MUSIC EXPO™ & WORKSHOPS

presented by: **GuitarPlayer.** **KEYBOARD®** **BASS®**

2nd YEAR

THE GPI GROUP • 411 BOREL AVE., SUITE 100, SAN MATEO, CA 94402 • PHONE (415) 358-9500 FAX (415) 358-9966

## THE BASS STOPS HERE!



*The Studio Electronics SE-1. The Ultimate Bass and Lead Synth.*

- ❑ Authentic Voltage Controlled Analog Circuitry
- ❑ Hands on Control with Large 80 Character LCD
- ❑ Fully Programmable 100 Sounds RAM 28 ROM
- ❑ Three Oscillators Four Envelopes Three LFO's
- ❑ Classic 12 and 24 DB Warm, Fat Analog Filters
- ❑ Extensive Midi Implementation including Sys Ex

**Studio Electronics "We're at the Bottom of it all."**

18034 Ventura Blvd. Encino, California 91316

Tel. 818-776-8104 Fax. 818-776-1733



## MIDI SEQUENCES

**MORE  
HOT LICKS  
IN EVERY  
BYTE!**



If you want faithful reproduction and unparalleled accuracy in MIDI programming, then you want the live-music sound of TRAN TRACKS MIDI Sequences.

With TRAN TRACKS you get quality service, great prices and a large selection of popular songs. We support all computer formats and most dedicated sequencers.

Experience the MIDGroove™ — it's "music-friendly!"

Call today and play tomorrow.  
5 songs or more only \$10.00 each.

### ORDER LINE

1-800-473-0797

Fax (201) 383-0797

Technical Support

(201) 383-6691

Empire State Building

350 Fifth Ave. #3304

New York, NY 10118



**TRAN TRACKS**  
MIDI SEQUENCES

AUSTRALIA - Rhythmic Bytes • 2-482-2086

UK - Hands On • 705-221-162

CANADA - Musicware • 416-785-3311

SPAIN - Future Music • 3-265-8348

## VITOUS ORCHESTRA SAMPLES

The string section pizzicati vary widely from sample to sample in the tightness of the section, which will probably make the material hard to sequence convincingly. We wish the sound developers had sampled each root note often enough to work up a more closely matching set for the multisampled instrument. The violin section instrument called "Pizz st 2x (studio)" is the strangest item in the library — two plucks an eighth-note or so apart. We're not sure how useful it would be to have a multisample with this sort of built-in rhythm.

In the solo strings, a few of the long notes swell in a markedly bumpy way, as if the player was trying to turn a single note into a meaningful phrase. There's a subtle but annoying metallic whistle at Middle C in the cello section détaché instrument. In the solo cello tremolando, the Middle C sample is quite noticeably sharp. The bottom end of the range in the long solo cello instrument has an envelope release that's way too long. The long solo trumpet samples in the low range slide up to pitch from below, which may be realistic but makes the instrument harder to use in a hocketed line.

The solo violin bank includes some trills and descending glissandi, but the multisampled instruments in both cases are incomplete, with large holes in the middle of the range. Some of the trills are half-step while others are whole-step, so you don't have a complete set suitable

for any key signature. The "spiccato" solo violin instrument is a complete throwaway (Miroslav calls it "an extra bonbon"), with a few four-note scales, a few repeated-note détaché figures, and lots of blank spots. Finally, the top long piccolo sample has a prominent honk at three spots in the body of the tone. It sounds like some sort of input aliasing, but Miroslav's comment is that that's what a real piccolo actually sounds like in that range. If you sequence it in a full orchestral passage and mix it at the proper level, it might well make the orchestra sound more realistic than a super-clean tone.

**Conclusions.** Wow! All week, as we were auditioning this library, people were poking their heads in the door and saying, "I thought I heard somebody playing violin in here." Once in the room, they stayed to listen and marvel. Yes, we spotted a few isolated flaws, and yes, the rounded dynamics on the sustained notes are a debatable choice, but overall the Miroslav Vitous Symphonic Orchestra Samples are a stunning resource for the dedicated sampler user.

Which leads to the inevitable caveat: It's not a cheap resource. Stack the four CD-ROMs on top of a 32Mb sampler and a CD-ROM player, and you're edging up toward the \$10,000 bracket. If that level of investment is typical for your music-making, or if you're looking to qualify yourself for soundtrack gigs at a professional level, give the Vitous Orchestra Samples a serious listen. They'll never believe you did the master tape in your spare bedroom.

## The Case Specialists



Medium to Heavy Duty Cases  
Available for Keyboards,  
Mixers, Guitars, Rack Mount  
Equipment and More!

Call for pricing on standard  
or custom designed cases!

**DISCOUNT  
DISTRIBUTORS**

800-346-4638 (In NY) 516-563-8326

## KEYBOARD SPECIALISTS

FOR MUSICIANS/BANDS/STUDIOS  
CHURCH/HOME/SCHOOLS

**ALL MAJOR BRANDS**

• SYNTHESIZERS

• DIGITAL PIANOS

• SAMPLERS

• DRUM MACHINES

• SOFTWARE

• MIXERS/AMPLIFIERS

• RECORDING EQUIPMENT

**VOLUME DEALER**

**NEW & USED**

**ALL BRANDS**

**ALL MAJOR  
CREDIT CARDS**

**PROFESSIONAL  
ADVICE**



Call for pricing information

**RHYTHM CITY**

1485 N.E. Expressway, Atlanta, Georgia 30329

**1 (404) 320-SALE • 1 (404) 320-7253**





**David J. Frangioni**  
Aerosmith, Elton John, Paula Abdul, Billy Joel, Debby Gibson  
"Voice Crystal sounds are exceptionally programmed, very useful and versatile. They provide me with a wealth of great sounds".  
*Don J. Frangioni*



**Professional Sounds Programmed and used by Professional Musicians**



**Greg Wells**  
K.D. Lang band-  
"Voice Crystal sounds help me customize my setup without spending countless hours on every synth. Very creative and useable sounds."  
*Greg Wells*

**Voice Crystal sounds are available for these synthesizers.**

<b>ROLAND</b> JV-80/880, JD-800, JD-990, JV-1000, D-70, D-50/550, D-20, D-10/110, D-5, GR-50 and 256K BlankRAM Cards.	<b>KORG</b> X-3 and i-Series, O1W/FD/Pro/ProX, O3RW, T-Series, M-1, M1-R, M-3R, 256K and 512K Blank RAM Cards.	<b>ENSONIQ</b> ASR-10, EPS16, TS-10, TS-12, KS-32, all SQ-Series, VFX/VFX-SD, SD-1, SQ-80, 32K Blank RAM Cards and EEPROM Cartridges.
<b>YAMAHA</b> SY-85, SY-77 and 64K Blank RAM Cards.	<b>WALDORF</b> Microwave and 256K Blank RAM Cards.	<b>KURZWEIL</b> K-2000, K-2000R, K-2000S.

**E-MU Systems** Vintage Keys



**PRODUCTIONS, INC.**  
MUSIC PRODUCTS DIVISION  
930 Jungfrau Court • Milpitas, CA 95035  
BUS: (408) 945-0139 FAX: (408) 945-5712

**Watch for new products and endorsements!**

## THE ULTIMATE MUSIC PATTERN GENERATION SOFTWARE FOR WINDOWS!

**Using Rhythm Brainz your imagination will run wild and your creativity will flow!**

Call or write for product literature or for a demo version. Or better yet...order a copy today. Also ask for Rhythm Brainz where you shop for your music equipment. Rhythm Brainz is \$135 plus shipping. Checks and credit cards accepted.

↓ Create separate musical and percussive patterns.  
↓ Compose songs using a familiar score format.  
↓ Breath new life into your drum machine.  
↓ Plus all of the features you'd expect from top-notch Windows Software.

**another midi brainz™ product from MediaTech Innovations™**  
"innovating intuitive midware"

**MediaTech Innovations™** 4995 minas drive  
san jose, ca 95136-2651 phone & fax (408) 267-5464  
**ORDERS ONLY: 1-800-mti-midi (1-800-684-6434)**

RHYTHM BRAINZ

# If your riffs are golden they're worth writing down



Dave Stewart, rock pioneer and veteran of NATIONAL HEALTH and BRUFORD, shows you how in *The Musician's Guide to Reading & Writing Music*.

According to Dave, "Being able to read and write music is no big deal. In fact, it's rather easy once you've learned a few simple rules."

To prove it, he's written a concise and witty book that takes you through the basics of notes and staves, progresses to rhythm, signatures and chords, and finally shows you how to write it all down. The book's numerous illustrations make the information easy to follow and fun to learn. This is an entertaining book and a great refresher course whether you play the guitar, bass, keyboard, or even the drums.

*Keyboard Player* calls it "Essential reading for hitherto lazy rock musicians!"

Ask for the *Musician's Guide to Reading & Writing Music* at a book or music store near you. Published by Miller Freeman, 112 pages, Paperback, \$7.95. If you're unable to find it at a local retailer, order by check or credit card from Miller Freeman Books, 6600 Silacci Way, Gilroy, CA 95020; phone (408) 848-5296; fax (408) 848-5784. Include \$5 for shipping and handling, plus sales tax in CA, GA, IL, NY, TX, and GST in Canada.





## MIDI SOFTWARE

Latest Versions — Shipped World Wide

### AMIGA

Bars & Pipes Professional .....  
ECE MIDI Interface .....  
MIDI Quest Generic Editor .....  
Patchmeister .....  
Super Jam .....  
Take Note .....  
Tiger Cub by Dr. T .....  
XoR .....

### IBM

Band In A Box (DOS/Windows) .....  
Ballade GS/Windows .....  
Big Noise M1, Multi D Editors .....  
Cadenza .....  
CakeWalk/Pro Windows .....  
Cubase Windows/Cubase Score .....  
Drummer 2.0 .....  
Quickscore Deluxe/Windows .....  
Encore .....  
Finale .....  
Key Elec. Laptop Interfaces .....  
Jammer 2.0 .....  
Master Tracks Pro .....  
Midi Express .....  
Multisound .....  
Music Quest Interfaces .....  
Music Quest Framelock .....  
Music Quest 2 Port/SE .....  
Music Printer Plus 4.1 .....  
Music Time .....  
Musicator GS Windows .....  
Note Play .....  
Pianoworks .....  
Play It By Ear/Rhythm Ace .....  
Power Chords .....  
Roland LAPC-1/SCC-1/Rap-10 .....  
Roland Sound Canvas .....  
Sample Vision .....  
Sequencer + Gold .....  
Songwright V 5.1 .....  
Super Jam for Windows .....

Voyetra V-24SM / V-24S .....

Wave for Windows .....

XOR by Dr. T. ....

### MACINTOSH

Altech EX Interface .....  
Band-In-A-Box .....  
Ballade .....  
Cubase / Digital Cubase .....  
Cubase Score .....  
Encore 2.5 .....  
Finale 2.5 / Music Prose 2.0 .....  
Mi Bac Jazz .....  
Notator Logic .....  
Opcode Galaxy / Galaxy+ Ed .....  
Performer 4.0 .....  
Composer's Mosaic .....  
Midi Express .....  
MIDI Time Piece II .....  
Midi Quest 3.0 .....  
Music Time .....  
Opcode Music Shop .....  
Songworks .....  
Studio+ 2 / Studio3 Interface .....  
Studio IV/Studio V .....  
Upbeat 2.0 .....  
Vision .....

### ATARI

Band In A Box .....  
Creator .....  
Cubase .....  
Dr. T Tiger Cub .....  
Edit Track Gold .....  
Export .....  
EZ Score .....  
Interval Music Sys K1/K4 Ed .....  
SMPTE Track II .....  
Gen Edit .....  
Genwave Univ. Sample Ed .....  
MIDI Quest 4.0 .....  
Notator / Notator Logic .....  
Unitor II .....

**LEIGH'S computers**

1475 Third Ave. • New York, NY 10028

(212) 879-6257 • Fax (212) 772-1689

(800) 321-MIDI (321-6434)

## LETTERS

Continued from page 78

as 1,200 Standard MIDI Files for users of more mortal systems. These are available free of charge to all who send me a 3.5" blank floppy and two International Reply Coupons. The files are normally supplied as either self-extracting archives for the Atari ST or in PKZIP format, so please specify which format you prefer. I can supply the Standard MIDI File version ready to go on two disks for those who don't want to wait several hours while the files extract.

Chas Stoddard

Avalon Music Developments

28 Rosemount Point

Dacres Road

Forest Hill

London SE23 2BW, England

### Chick Corea

Thank you, Chick Corea, for telling this closet synth addict that it's okay to just play piano [Feb. '94]! May I head up the Chicago chapter of Synth Anon? And does this mean I can ditch all my literature on physical modeling? . . . Nah. I guess I'm still hooked. Keep the coffee flowing.

Teresa Meinerio

Chicago, IL

### Steppin' to Auto-Accompaniment

In his review of the Korg i3 [Jan. '94], Jim Aikin concludes that "Korg has taken the auto-accompaniment idea into relatively uncharted

territory." That may be true for Korg, but Roland mapped the high-end consumer synth industry back in '88 when it introduced its E-series "intelligent synthesizers." Before that retro-dancin' fool Aikin trips over his feet, maybe he should dance with Roland. I recommend that he review the Roland E-86, which was introduced last year to replace the E-70 and is the most recent entry in a product line that has evolved over a five-year period. The i3 seems to incorporate a lot of features listed on the E-86 spec sheet.

For all those guys at *Keyboard* who like to play with bubble machines, I can see where that stock I-IV-V progression could get stale after a week or so. Next time, open a fake book to a song of your choice. Select an appropriate style. Play the melody with the chords. (Wow! Isn't that an interesting concept?) Does the style of accompaniment complement the melody? Does the accompaniment overpower or conflict with the melody? It's the melodies, not the accompaniments, that keep music fresh. The value of any auto-accompaniment instrument lies in how well the styles accompany the melodies you want to play. If you can't play your favorite songs, you won't enjoy the instrument, no matter how many styles or features it has.

Frank Rebeka

No address given

### In Review

It's obvious that the '70s disco era was a very traumatic period in Robert L. Doerschuk's life.

Continued on page 152

# KEYBOARD

## SUBSCRIPTION ASSISTANCE FORM

- ☐ I've filled in my new/correct address in the space below my current *Keyboard* label, which I've attached.
- ☐ I've missed the issues of \_\_\_\_\_  
(List month and year.)
- ☐ My copy of *Keyboard* arrives late each month. This copy arrived  
on \_\_\_\_\_.
- ☐ Other (Please indicate other assistance required.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mail to: **Keyboard, P.O. Box 58528, Boulder, CO 80322-8528**

IMPORTANT:  
ATTACH THE LABEL FROM YOUR  
KEYBOARD COVER HERE

Correct Name \_\_\_\_\_

New/  
Correct Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_





# Some Of The Best Names In The Music Business Have Discovered The Biggest Secret In Digital Recording Systems Comes Completely Packaged For Just **\$1,295<sup>00</sup>**

Turtle Beach 56K™... in a word, the best value in digital recording systems in the industry today!

OK, so we used more than one word, but the fact is, nothing comes close to the 56K for turning your IBM compatible computer and DAT machine into a professional digital audio mastering workstation — unless you take out a second mortgage on your hacienda.

56K is chock-full of real-world features, like a Motorola digital signal processor running at 10 million instructions per second (MIPS), and a proven technology we've been shipping and enhancing for over 3 years.

There are no hidden gotchas either, like some other products. With 56K, what you need is what you get ... for just \$1,295.

And here are some other reasons why it is a powerhouse for the money ...

- ▶ SoundStage Mastering software included ... replace your analog 2-track tape recorder, razor blade and splicing tape with flawless, crystal clear digital editing.
- ▶ Non-destructive tools ... make instant changes without affecting the source file, thanks to our Playlist editor and realtime 4-band parametric equalizer. Fast and powerful.
- ▶ Time compression ... change the time without changing the pitch ... create perfectly timed radio commercials, music, or audio segments.

- ▶ Stereo mix ... mix stereo sound files together ... digitally.
- ▶ Visual analysis tools ... real time 3-D FFT display, browse, frequency analysis and others.
- ▶ SMPTE chase/lock ... synchronize audio with video for television, video, and motion picture projects.
  - ▶ SMPTE/MIDI manual triggering ... trigger audio playback from a variety of sources. Use live sound effects playback in theater and other live applications.
- ▶ Gain adjustments ... perfect fade-ins, fade-outs, cross-fades, and volume changes.
- ▶ Single sample editing ... repair clicks, pops and other imperfections with up to 1/48000 second accuracy.
- ▶ The all important "undo" ... if you're not happy with an edit, undo it.

Of course there's more. If you would like more information, call 1-800-645-5640.

Or better yet, call and order 56K direct today, and find out why we've mastered more hit albums than you can shake a mouse at!

We guarantee it ... we'll back up that claim with a 30-day money back guarantee.



## **TURTLE BEACH SYSTEMS**

P. O. BOX 5074, York, PA 17405 717-843-6916 FAX: 717-854-8319



## ROLAND JV-1000

### SYNTHESIZER

By Jim Aikin

**S**INCE THE DEMISE OF THE D-70, Roland hasn't had a 76-key synthesizer in their product line. Also, while they've been a leading purveyor of stand-alone hardware sequencers, it's been a while since they had a hot-selling instrument that boasted a built-in sequencer. (Let's see, there were the D-20 and W-30. . .) So it makes sense that they'd bring out something like the JV-1000. It's a do-everything workstation instrument, and is priced in the same range as comparable instruments like the Ensoniq TS-12 and Korg 01/WED, though considerably less expensive than Yamaha's flagship SY99. Based directly on the synthesis engine used in Roland's popular



JV-80 synthesizer, the JV-1000 also includes an MC-50 MkII hardware sequencer, which has a disk drive. By buying a JV-1000 rather than the JV-80 and MC-50 separately, you save \$250 on the list price and get a 76-note keyboard thrown in — not a bad deal at all. When we spotted one on the display floor at Guitar Center in San Jose, we called Roland and asked if they could ship us a unit for a review. When Roland declined, we went back to Guitar Center and asked if we could borrow their floor demo unit for a couple of weeks. They graciously agreed.

The JV-80/MC-50 combination isn't the end

of the JV-1000's feature list. If you crave more polyphony (and who doesn't?), you can purchase the optional VE-GS1-01 Voice Expansion board. This board is essentially a Sound Canvas tone module, integrated into the JV-1000 by means of a number of "V-EXP" labels on various front-panel buttons, a separate pair of audio outputs, and its own volume and "presence" sliders.

We're delighted to see Roland offering expanded polyphony as an option in a high-end synthesizer. This is the wave of the future. And the Sound Canvas is a good-sounding, inexpensive add-on. Of course, if you want to use a Sound Canvas as a MIDI expander, you could just as easily buy one as a stand-alone and hook it up to any other synthesizer/sequencer. There are reasons, as we'll see, why some folks might consider that a better option. At the January NAMM show (see page 90), Roland introduced the VE-JV1, which is the same price as the VE-GS1-01 but is essentially a second JV-80 synthesis section, with the same programming parameters, effects, and so on as the rest of the JV-1000. While we didn't have a chance to test-drive the VE-JV1 in a JV-1000, it's reasonable to speculate that it may integrate more smoothly into the 1000's operating system from the user's point of view.

**Overview.** The first thing you notice about the JV-1000, other than the tempting 76-note keyboard, is that there are an awful lot of buttons — 102 of them, to be precise — many with two or even three different labels. Also four MIDI jacks in place of the typical three, and not one but two LCDs. Why two LCDs? Because the sequencer is on the right side of the panel and the synthesizer is on the left. Most workstation-type instruments provide an integrated editing environment, but the JV-1000 really is two separate devices inhabiting the same housing. The buttons, data wheel, LCD, numeric keypad, and left/right cursor keys on the right half of the panel are dedicated to sequencing tasks, while the eight data sliders, inc/dec keys, LCD, 8 x 2 patch select keypad, and up/down/left/right cursor keys on the left half of the panel are dedicated to control of synthesizer functions. There is no overlap in functionality: You can't use the data wheel to change values in the synthesizer LCD, and you can't use the inc/dec buttons to change values in the sequencer LCD. There are also two enter buttons (but only one exit button), two edit buttons, and two pairs of left/right cursor buttons.

Some folks might feel that it's more convenient to have two independent LCDs, so as to be able to view the sequencer operations and synth operations independently — but we're inclined to think the money would be better spent on one large LCD rather than two small ones. Likewise, we're beginning to wonder whether having lots of buttons and sliders nec-

## ROLAND JV-1000

**Description:** Synthesizer with built-in sequencer and effects.

**Keyboard:** 76 notes, E to G. Velocity, release velocity, and channel pressure sensing.

**Memory:** 4Mb waveform ROM. 256 ROM patches, 64 RAM patches, four ROM drum kits, one RAM drum kit. 64 ROM performances, 16 RAM performances. Sequencer holds 175Kb (about 40,000 notes) in ten songs, 240 rhythm patterns per song. One 12-note user tuning in single patch mode, seven 12-note user tunings in performance mode. PCM and patch card slots. Optional 8Mb wave expansion boards contain up to 255 additional ROM patches.

**Features:** JV-80 synthesizer housed with MC-50 MkII sequencer and optional Sound Canvas expansion board for added polyphony. Up to 28-note polyphonic (expandable to 56 notes). Left-hand control section includes separate volume sliders for JV-80 sound and Voice Expansion board, plus separate "presence" (treble boost) sliders and expression slider. Expression slider assignable to many types of MIDI data. Eight sliders for real-time tone control in performance mode (four in patch play mode). Eight-way keyboard splits and layers with separate control over MIDI transmission channels. On-board chorus and reverb programmable per patch. Separate bypass buttons for chorus and reverb. 3.5" disk drive.

**Voice Architecture:** Four tones per patch. Each tone includes high/lowpass resonant filter, FXM waveform modulation, keyboard pitch scaling, two LFOs, three four-stage rate/level envelopes (pitch, filter, amplitude), selectable velocity response curves, 12 modulation routings.

**Sequencer Features:** 96 ppq clock resolution. Eight 16-channel "phrase" tracks plus drum-machine-style rhythm track and tempo track. Manual track mute/unmute buttons. Eight locate points can be named. Block edit operations: Erase, delete, insert measure(s), merge, extract, transpose, velocity add/subtract and multiply, rechannelize, quantize (incl. strength percentage), copy, change duration, time shift ( $\pm 99$  clocks), controller thin, compand, reverse, and remap controllers, program changes, or note numbers. Block edits can be applied to ranges with bar/beat/clock accuracy. Event editing. Step entry. Auto-punch. Replace and mix record modes. Rhythm pattern recording with playback velocity offset and programmable drum note/channel remapping. Metronome volume level knob, "smart" FSK tape sync.

**Interfacing:** Stereo headphones, L/R mix out, L/R Voice Expansion out, metronome audio out (all 1/4"). Pedals: Sequencer punch in/out and start/stop, damper, two programmable sweep pedals (all 1/4"). Tape sync in and out (RCA). MIDI in, thru, two outs.

**Dimensions:** 48-1/2" x 13-3/4" x 3-3/4". 29 lbs.

**Suggested Retail Price:** \$2,995. Optional VE-GS1-01 Voice Expansion board, \$445. Optional Wave Expansion boards, \$445 each.

**Contact:** RolandCorp US, 7200 Dominion Circle, Los Angeles, CA 90040. (213) 685-5141. Fax (213) 722-0911.





*Can a synthesizer have too many front-panel buttons? The Roland JV-1000 is two — or even three — hardware devices packed into a single unit. All that, and a 76-note keyboard too.*

essarily makes synth programming easy. We found it rather confusing at first trying to figure out which button to push in order to accomplish which task. Once we had spent a couple of days with the instrument, we began to get comfortable with it. All things considered, the panel layout isn't great, but it's not that bad either. The real difficulties caused by the lack of integration between the sequencer and the synthesizer are more subtle (as we'll see below).

Out of the box, the JV-1000 is up to 28-note polyphonic (depending on how many oscillators are required per note) and eight-channel multitimbral. The optional Voice Expansion board adds 28 more voices of polyphony and full 16-channel multitimbrality. There's a kicker, though: The added voices and MIDI channels can't be shared by the main synthesis engine. They're off in a world of their own, with their own effects processor, parameter definitions, sequencer output bus, and so on. In other words, if you've designed a wonderful JV-80 sound by creating a 12-oscillator multi-patch layer in performance mode, it will be only two-note polyphonic either with or without the Voice Expansion board installed. While it is technically possible to set up a layered sound that combines a JV-80 patch with a Sound Canvas patch (by using the sequencer's MIDI thru), it's best to think of the added polyphony as being intended strictly for multi-channel sequencing applications in which the JV-1000 is producing a full arrangement by itself.

**Tones for a Jones.** The best thing about the JV-1000 is its knockout sound. For more details, see our May '92 Keyboard Report on the JV-80. To recap briefly, each patch can contain up to four tones — that is, separate oscillators with their own waveforms, filters, LFOs, and so on. The sounds are rich, sparkling, and punchy. The resonant filters can be set to either lowpass or highpass operation, which makes it easy to pro-

PROS & CONS	
<b>Pros:</b>	Optional sound board increases polyphony and adds a second chorus and reverb. Smart FSK tape sync. Excellent eight-channel MIDI master keyboard capabilities.
<b>Cons:</b>	Lack of integration between synth, sequencer, and expansion board. Limited MIDI recording of performance slider moves.
<b>Bottom Line:</b>	Great sound, respectable features, but too many operations are not user-friendly.

gram pads with breathy layers, guitar picking noise with plenty of detail, and lots of other evocative timbres.

The basic JV-1000 (without the Voice Expansion board) features dual effects processors, one for chorus and the other for reverb. The effects sound very good, and nine times out of ten they should provide all the enhancement that's needed . . . but frankly, they don't come anywhere near the competition. There's no real-time control over effects parameters, and effects like distortion, multitap delay, and rotary speaker simulation, which are found in the built-in effects in many synths in the over-\$2,000 price range, are not available in the JV-1000.

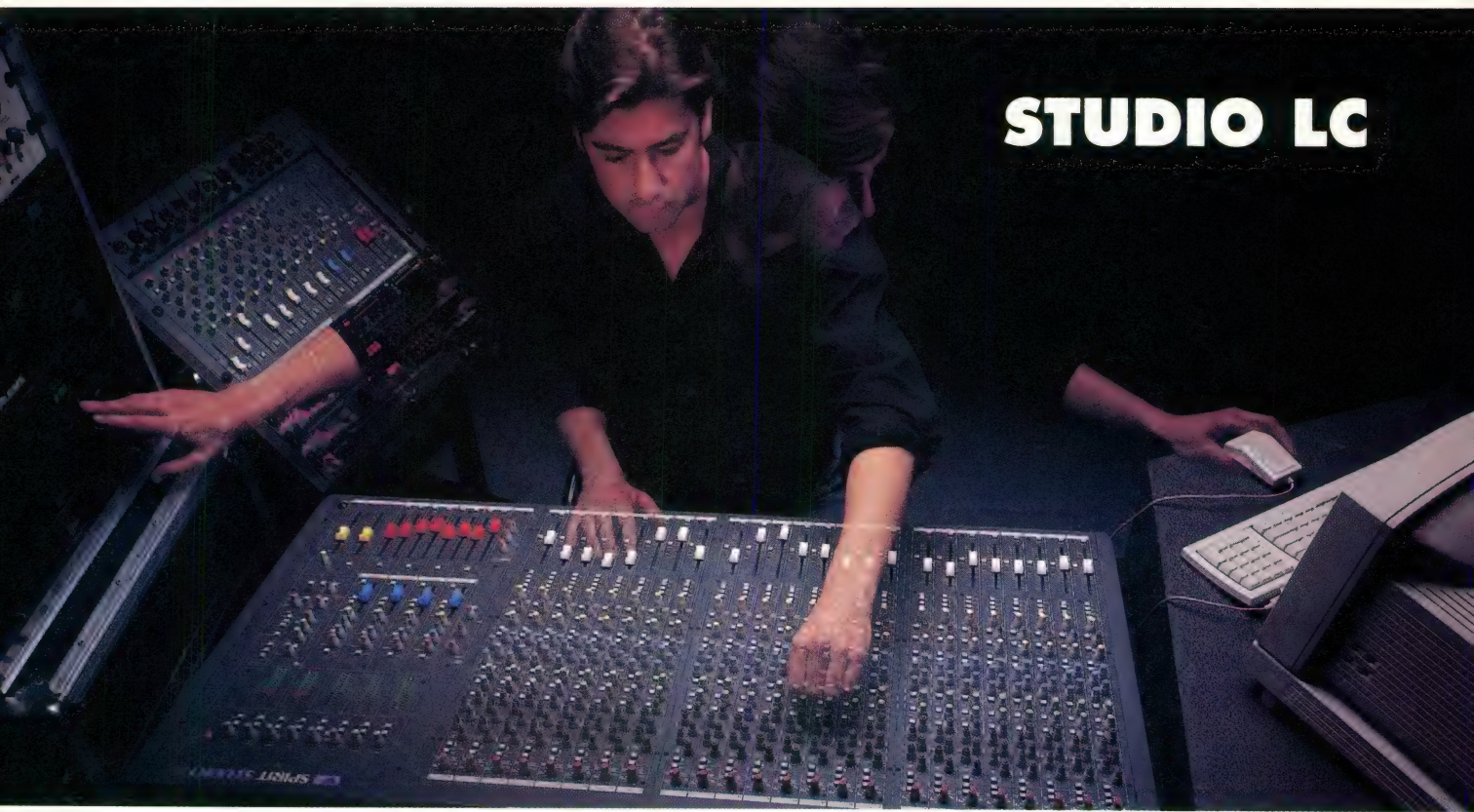
The waveform list is highly versatile, and includes most of the categories found on the typical high-end sample-playback synth: pianos, guitars, basses, winds, choir, percussion, and so on. For the most part they're beautifully recorded and well looped. All 152 waves are available in the user-programmable drum kit, which is definitely better than the system we've seen on some other instruments. And speaking of percussion programming, the JV-1000 provides separate envelope, filter, and velocity control over each of the 61 drum keys — solidly cool.

The array of real-time modulation routings is quite respectable, and the left-hand controller section of the instrument includes a program-

mable expression slider, which is a very nice plus. This slider can be programmed to transmit any MIDI controller between 0 and 95, to bend pitch up or down, or to send aftertouch. Since controller 11 (expression) response can be programmed into individual patches, when the slider is set to controller 11 it becomes an additional programmable modulation source. Alternatively, you could use it for controller 1 (modulation wheel) in place of Roland's paddle controller. This way, you can set a "mod wheel" position with the slider and then use both hands on the keyboard, something that's not possible with the spring-loaded paddle. The slider can even be used for incrementing or decrementing through the user presets. This concept is implemented very well: You might expect the slider to call up all 64 patches across the range of its travel, but that would be very difficult to control. Instead, each time you push the slider from the bottom to the top, the program number increments (or decrements) by one. If you take the time to arrange the user bank so that it corresponds with your set list, you'll find this system much easier to deal with in the heat of a gig than poking at the patch select buttons. Oh, and the slider can also be assigned to transmit controller data over MIDI without affecting the internal sound, or vice-versa, or both at once, which again adds to the music power.



# STUDIO LC



## QUALITY MIXING THAT'S WITHIN EVERYONE'S REACH

**N**ew technology brought down the cost of digital multitracks, samplers, keyboards and rackmount sound modules, enabling you to add more equipment to your studio. But now you're paying the real price: your mixer's inputs are inadequate, your recordings seem noisier – and you think you can't afford a better console.

Think again. The 8-bus Studio LC does much more for much less than any other mixer in its class. It juggles all your instruments, mics, signal processors and effects units effortlessly. It's so quiet, its transparent to digital recordings, and it's compact enough for even the smallest studio. Studio LC comes in 16, 24 and 32 channel frames and it has

features you expect from a mixer costing twice as much: 82 inputs at mixdown (32 channel frame), 8 aux sends and 7 returns as standard, powerful 3-band EQ.

It even has features you wouldn't expect, like a submixer input, a true Solo-in-Place facility, fully balanced inputs and ground compensated outputs.

But how's it done? Uncompromising design drawn from 21 years of know-how, plus the most advanced mixer production line in the world, that's how. There are no cut corners, no cheap components, no skimpy circuits – just audio engineering at its best.



There's just too much to tell you about Studio LC in a one-page advertisement so if you're ready for a better mixer, write, call or fax for full details.

At last, Spirit Studio LC brings quality studio mixing within your reach.

Soundcraft/JBL Professional,  
P.O. Box 2200, 8500 Balboa Boulevard,  
Northridge, CA 91329, U.S.A.  
Tel: 818-893 4351. Fax: 818-893 0358.  
Flashfax: 818-895 8190 – Ref N° 254

**UP TO 82 INPUTS AT MIXDOWN**

**8 BUS GROUP SECTION**

**8 AUX SENDS & 7 STEREO RETURNS**

  
**SPIRIT**  
By Soundcraft

**H** A Harman International Company



## ROLAND JV-1000

One of the XLNT things about the JV-1000 is its eight real-time expression sliders. While not programmable, these can be assigned on the fly to many different parameters, from filter cutoff and the output level of individual oscillators to exotic things like attack time, effects balance, filter type, envelope key follow, waveform, and pitch envelope amount. By nursing the sliders during performance, you can create some marvelous musical colors. The not-so-groovy thing about these sliders, unfortunately, is *what they won't do*. Except for standard volume and pan controller data when the JV is in performance mode, they won't transmit any type of MIDI data, not even sys-ex packets. So you can't record their movements into a sequencer. Not even into the JV-1000's own sequencer. The left-hand expression slider does transmit MIDI data, but it can address only a few of the parameters noted above.

The JV-1000 comes with a generous 256 ROM patch presets, plus 64 user-programmable patches. If you've purchased one of the 8Mb waveform expansion boards, up to 255 more patches that use its waves are also available directly from the front panel — no messy copying is required to get the patches under your fingers, which makes this area of the operating system an improvement over the JV-80. Just about all of the 111 patches in the wave expansion set

for the SR-JV80-03 Piano Expansion board, which was in the unit we tested, are acoustic and electric pianos and Clavinets, because those are the waves on the card. Again, it's great to see Roland supporting the concept of synthesizer expandability, and the added patches make it easy to get the most out of your wave expansion board.

The performance area can be used for building split and layered programs as well as for multitimbral sequencing layouts. Velocity-switched layers are not possible, but if you need this effect you can program up to four-way velocity switching into a single patch — or program it into several patches and layer them into a performance. Sixteen user performances are provided, and 64 presets. The presets contain templates for multitimbral ensembles in various styles. The extremely cool thing about the performances is that you have separate control over the MIDI transmission zones on the keyboard. They can be assigned to their own channels and transposed, and you can set the maximum velocity value that will be transmitted from a zone, which could be useful once in a while if you want to set up a background layer that won't get any louder when you bang on the keyboard. You have separate control, interactively in performance, over the volume of internal and external sounds in the same region of the keyboard. For an instrument with a 76-key keyboard, this type of functionality

is especially appreciated.

Four preset drum kits and one programmable kit are included in the instrument. You have separate control for each key over important parameters like pitch envelope and filter cutoff frequency. The kits only cover 61 keys, which seems a bit silly in a synthesizer that has 76 keys. You might expect to be able to take advantage of the rest of the keys by putting two kits into a performance and transposing one up and the other down so as to get at the outer ends of the key range, but this turns out not to be possible. As far as we were able to determine by reading the manual and poking at the front panel, part 8 of the performances is always a drum kit, while none of the other parts can be used for drum kits. This is also a bummer in that it prevents you from layering two drum sounds on a single key, which you might want to do for fatter percussion.

**Tones for a Jones, Plus 'Bones.** Trombones, that is. With a General MIDI Voice Expansion board installed, the JV-1000 has enough polyphony to record full arrangements with very few compromises. This board is basically the guts of a Sound Canvas (see Keyboard Report, June '92), which means that it operates in a completely different manner from the JV-1000's basic synthesis engine. The sounds are much less programmable, for starters. Also, any edits that are made in the sound parameters are stored not within patches, but within parts (that

# KEYBOARDS

*Before You Jump...*  
**CALL US LAST!**



- SYNTHESIZERS
- DIGITAL PIANOS
- RECORDING GEAR
- DRUM MACHINES
- SAMPLERS
- AMPLIFIERS
- MIXERS / EFFECTS

**ALL MAJOR BRANDS**

- MUSICIANS
- STUDIOS
- BANDS
- SCHOOLS
- CHURCHES

*Call Us When You're Ready To Buy!*

**RICH**



**1-800-795-8493** M-F 10:00 - 6:30  
SAT 11:00 - 5:00  
1007 AVENUE C • DENTON, TX 76201 • FAX (817) 898-8659



## Stanford University

Center for Computer Research  
in Music & Acoustics • CCRMA

Summer Workshops

June 27 - July 22, 1994

**Introduction to Yamaha VL Synthesizers &  
Algorithmic Composition in Common LISP**

June 27 - July 8, 1994

**Advanced Projects in Algorithmic Composition**

July 11 - July 22, 1994

**Intensive Music/Audio Digital Signal  
Processing & Spectral Modeling Synthesis**

July 4 - July 15 (or July 22), 1994

**Music Printing with Small Computers using  
SCORE**

July 11 - July 22, 1994

*For applications and information, contact:*

CCRMA Summer Workshops, Department of Music,  
Stanford University, Stanford, CA 94305-3076, USA.

Phone: (415) 723-4971 Fax: (415) 723-8468

E-mail: ALEDIN@CCRMA.STANFORD.EDU



## ROLAND JV-1000

is, MIDI channel reception areas). So if you add vibrato and filter resonance to a flute on channel 3 and later decide that you want a piano on channel 3 instead, the piano will have vibrato and filter resonance.

When you first press the V-EXP button to enter Voice Expansion mode, the LCD will prompt you to press ENTER to transmit the relevant portions of the operating system's memory buffer to the Voice Expansion board. You don't have to press ENTER; other buttons will let you access the V-EXP editing environment, where you can do things like change the reverb send level or coarse tuning for a part — but if you don't press ENTER at the beginning, what's dis-

played in the LCD (patch numbers, for starters) may not correspond to what you hear. In our opinion, the LCD of an instrument should always correctly show the current state of what's going on inside the instrument, but this is not invariably the case in the JV-1000.

For each of the 16 parts in V-EXP mode, you can use bank select messages to choose any bank between 0 and 127. Most of these banks are empty, however. Some patches have alternate sounds (detuned electric piano, for instance) stored in bank 8, and some of the General MIDI sound effects patches have as many as eight or nine alternate sounds in banks 1 through whatever. The only reason we can see for providing full 0-127 bank select capability is that these messages can be trans-

mitted over MIDI to a module that has the corresponding memory banks.

At first we were mystified about how to transmit our part edits to the sequencer, so as to be able to save them to disk. There appeared to be no front panel command that would accomplish this. A Roland product specialist kindly enlightened us: Every time you press ENTER to go into the V-EXP area, the edits are transmitted to the sequencer as sys-ex data. What could be simpler?

If you need more control over the VE-GS1-01, you can enter controller messages and sys-ex strings manually in the sequencer's Microscope Edit mode, using the message formats described in the *Keyboard* Feb. '94 Hot Tips clinic on the Sound Canvas. This method provides additional control over VE-GS1-01 parameters, such as portamento, that can't be accessed directly from the front panel. A word of caution, however: If you do this, you must be careful *not* to press ENTER when entering V-EXP mode, an action that the LCD will always prompt you to take. This is because the top layer of the JV-1000's operating system doesn't know that you've transmitted different part parameter values from the sequencer to the Voice Expansion board. It will still have its own values in its own memory buffer, and if you press ENTER the data you've sent to the board from the sequencer will be overwritten.

**The Sequencer.** The first thing we did after plugging in the JV-1000 was follow the easy step-by-step instructions in the Introductory Manual for recording a song into the sequencer. As instructed, we selected a multitimbral performance that included a nice vibes patch, and laid down a jazzy lead line. So far, so good. Now for Step 8, "Listen to the part you just recorded." Wait a minute; on playback, the vibes were doubled by an acoustic piano patch. The section of the manual that we were in said not a solitary word about how such a phenomenon could occur.

So much for instant gratification. Time to roll up our sleeves and get serious. We quickly discovered that the acoustic piano was coming from the Voice Expansion board. Getting rid of it was as simple as pulling down the separate volume slider that controls this board's output. But that makeshift solution would be useless when it came time to use the board's sounds in our sequence. To actually solve the problem, we needed to know more about the sequencer's output MIDI bus assignments.

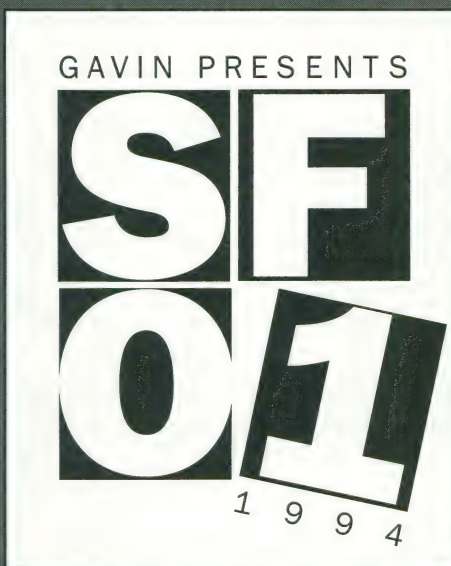
Here's what we learned: The sequencer has two independent MIDI output busses. Normally, output 1 is routed to the JV-80 synthesis engine in the 1000, while output 2 is routed to the Voice Expansion board and also to the 1000's fourth MIDI jack, the one labelled "SEQ OUT." (There's another routing, which we'll get to below.) Each time the instrument is switched on, all tracks default to transmit on both busses, but the sequencer's MIDI thru is switched off. Thus we heard only the basic JV-80 sound from the keyboard, while the track playback drove both tone

Musician? A&R  
person? Lawyer,  
agent, manager,

or music  
journalist  
trolling for  
hot new  
Northern  
California  
talent?  
Wanna  
learn all  
about the  
music biz

from several  
industry big  
cheeses? Need  
to put some fun  
into your very  
sheltered  
existence? Then  
come to San  
Francisco this

MAY 19, 20 &  
21



year for the first  
ever SFO1.

Your \$175  
registration  
(less if you act  
quickly) admits  
you to two  
days of  
seminars,

three  
nights of  
music and  
really big  
bouncers will  
smile warmly  
as you enter  
the killer  
cocktail party  
held at Miss  
Pearl's Jam  
House.

To receive a  
brochure, or  
registration and  
discount  
information, call  
the SFO1  
Hotline now at  
(415) 495-3200.

See you!



generators. To direct the first track's MIDI output solely to the JV-80 engine, we merely had to hit FUNC 11 ENTER 1 STOP. A simple enough command sequence, once you understand what it's used for; too bad the Introductory Manual failed to mention it in the tutorial section.

While the sequencer's MIDI output 1 is transmitted internally to the JV-80 synthesis section, it never appears at either JV-1000 MIDI out jack. And because this section is only eight-channel multitimbral, when the instrument is set up as described above the sequencer can play on only 24 channels, not 32. Any external modules being driven by the JV-1000's sequencer must share a 16-channel bus with the Voice Expansion board. Still, switching off individual channels on this board is easy to do, and 24 channels should be plenty for most of the home studios in which the JV will be operating.

By unscrewing four small screws that hold a metal plate on the bottom panel, you can get at a tiny switch that switches the Voice Expansion board over to output bus 1. At this point it will share the 16 internal MIDI channels with the JV-80 sound source and free up the other 16 channels (that is, the entire bandwidth of the MIDI "SEQ OUT" jack) for external modules. That's true 32-channel operation, although the only module that can use eight of the channels is the Voice Expansion board on the internal MIDI bus.

Each of the eight sequencer tracks can have up to 16 channels of data, so there should be plenty of room to build complex arrangements. Also, the data on a single channel within a single track can be rechannelized on transmission (as a playback function, without affecting the data stored in memory), which means you can reassign two parts to a single module without mingling their data — a subtle but very helpful resource.

A single channel of data on a track can be edited independently, but the track must be muted or unmuted as a whole. (If it's a track that's playing the JV-80 engine, you can mute one part at a time using a different set of mute buttons, but this will mute *all* of the notes being played by that part, no matter what sequencer track they may be on. Most of us are careful not to strew the phrases for a single sound out across multiple sequencer tracks, so again, this is not a big issue.) And don't forget, the MIDI output bus setting will be shared by all of the channels on the track. What this means is that in building an arrangement you'll need to think carefully about which parts should share the same track.

The sequencer will perform most of the standard operations that you'd expect, and a couple that you might not expect. Material can be erased or deleted (the latter closes up the gap in the track, while the former leaves a hole), specific types of data can be extracted, velocity values can be shifted or companded, blocks of events can be rechannelized, note durations can be expanded or contracted, and notes can be quantized. The easy method of working per-

forms these block operations on whole bars of data, but if you've defined your locate points properly, such operations can be executed on regions defined with bar/beat/clock precision.

Advanced editing operations let you remap note numbers, which you might do if you acquire a new drum module, or controllers (changing mod wheel data into volume data, for example). Quantization can be performed with a specified strength, from 0.1 to 1.0. This helps tighten up a part without losing the human feel. It's really too bad there's no swing quantization, however. Some hip-hop grooves rely heavily on sixteenth-note swing . . . but if you want that feel on the JV-1000, you'll have to play it by hand and then tighten up the rhythm by editing one note at a time.

Eight locate points can be defined. They can be named as well. Setting the playback start point to one of your named points is ultra-quick and easy. Event editing is also supported. There's even a display filter for events, which is handy since you may have several channels of data on the same track. When the display filter is set to show only one channel, it's much easier to edit a part.

The sequencer also has a pattern-oriented rhythm track. This track supports only 32 drum notes (considerably less than the JV-1000's 61 drum kit notes) and single-bar rhythm patterns. Since most of today's grooves are based on two-bar or four-bar patterns, you may want to record some patterns in 8/4 or even 16/4 time. This is easy to do; you only have to remember where

# WHERE IS JAZZ PIANO GOING? INTERNATIONAL!

**U.S.** audiences heard for the first time last year the amazing talents of Cuban pianist and composer **GONZALO RUBALCABA**.

In sharp contrast to the intimate, all-acoustic work he's recorded so far, Gonzalo augments his new release, **RAPSODIA** with complex arrangements, electricity, and a fiery spirit. If you've never experienced the side of Gonzalo that is powerful technically and emotionally, **RAPSODIA** will be a startling surprise.



**A** former pianist with Joe Henderson, Betty Carter, Kenny Garrett and The Mingus Dynasty band, **JUNKO ONISHI**'s new album **CRUSIN'** reveals this striking Japanese musician has found her own voice in jazz. With grace and confidence—and always uncommon harmonic voicings—she displays her own compositional gift and puts her stamp on songs by Duke Ellington, Sonny Rollins, Ornette Coleman and others. With Rodney Whitaker on bass and Billy Higgins on drums.





© 1994 Capitol Records, Inc.

The Finest in Jazz is available on Blue Note Cassettes and Compact Discs  
For a free catalog, write to True Blue Music, 35 Melrose Place, Stamford, CT, 06902



## ROLAND JV-1000

the long "measures" are when editing the rest of the tracks. Alternatively, you may want to ignore the rhythm track entirely and record your drum parts into an ordinary track. This is a less efficient use of memory, but the JV-1000 sequencer will still have plenty of memory to hold several long, complex songs at once.

Both real-time recording and step entry of rhythm patterns are supported. In step entry, a visual display shows, for one drum at a time, which beats have notes on them. Eight different drum velocity values can be programmed. In real-time recording, there's no scoop-out erasure of wrong notes, which has been standard on drum machines for years. For added realism

in the dynamics you can program the velocity values in a pattern to fade up or down while the pattern repeats.

Event chasing is a vital part of sequencer design. When you start playback in the middle of a song, you want all of the program and volume changes preceding the start point to be transmitted in a quick burst before the music actually starts, so that the song will sound correct. The JV-1000 sequencer can be configured to chase program and volume changes . . . but only when it is synced to external MIDI clocks and receives a MIDI song position pointer message. Start playback in the middle of a song using the front panel START button, and — oops. You forgot to manually press PAUSE/MIDI, the button combination that causes the messages to

update. One minor advantage of this design is that you could try out, for example, different lead patches in the middle of a song by selecting them from the front panel, which is more convenient than going into edit mode and altering the program change message in the track.

**MIDI Reception.** As we've already noted, the JV-1000 can operate on up to 32 MIDI channels when its own sequencer is used. It only has one MIDI in jack, however, which made us curious: What would happen when we sent it MIDI from some other source? When external MIDI signals are being received, the JV-1000 is only 16-channel multitimbral. You can choose between performance play (eight channels) and Voice Expansion play (all 16 channels), or, by switching on the internal sequencer's thru bus, you can layer the performance and Voice Expansion sections or choose one synth tone generator for certain channels and the other tone generator for other channels. With up to eight channels of layering, there's enough synthesizer power to make for some heavy sounds.

We spotted a rather surprising problem when our JV was set up to receive external MIDI data in single patch mode. Not to beat around the bush, we got stuck notes. Roland tells us that this bug was present only on the first shipment of JV-1000s. A newer operating system is available on which the bug is fixed; if you should have any problems, contact Roland for an update.

**Operating Theatre.** The fact that the JV-1000 is really two or three separate pieces of equipment sharing a housing makes the learning curve steeper than it might otherwise be. On top of this, we kept stumbling across operations that seemed needlessly convoluted to us, or that posed pitfalls that might trip the unwary. Here are a few of our observations, in no particular order:

- Most of the time, when finished with a sequencer function you press STOP, which is the sequencer's exit/cancel key. After a disk save, however, STOP doesn't work. You must press SHIFT-MODE and then STOP. After editing configuration parameters or doing anything else that takes you to a mode other than "MIDI Recorder," you must hit STOP, then SHIFT-MODE, then STOP or ENTER. This is not much different from backing out through three dialog boxes on a computer screen — not a disaster, certainly, but not streamlined operation either. On the other hand, when you're working with a computer you can see what the dialog box says, and respond appropriately. On the JV-1000, you have to memorize the correct command sequence.

- Each time you hit a sequencer button such as EDIT or FUNCTION, you are taken to the top of the menu, to item 1, and must use the data wheel or numeric keypad to get to the desired item before pressing ENTER. The same type of thing happens on virtually all of the sequencer edit screens: The track selection is always ALL, so if you're doing some edits in track 3, for instance, you have to dial up track 3 over and over

KEYBOARD DEALER OF THE YEAR 1993

*Caruso Music*

TRUSTED BY MUSICIANS WORLDWIDE



65 Years Of Excellence!

Keyboards, Digital Recording, Multitracks, Processors, Software, Digital Pianos and Accessories. All Major Brands New and Used. Trade-Ins Welcome, Worldwide Delivery. Price Quotes & Orders Via Phone, Mail or FAX, 24 Hours A Day, Seven Days A Week!

All Major Credit Cards • COD • Wire Transfer • No Sales Tax (Except In Conn.)

¡Sí, Hablamos Español! • Family Owned Since 1929

20 Bank St. New London, CT 06320 USA

CALL TODAY 203-442-9600

FAX 203-442-0463



# MUSIC POWER

Over the years these big, beautiful art prints from Castalia Publications have become an important part of millions of homes, libraries, schools and studios. The most comprehensive music reference sources available in *any* format, they have become true classics, and are world renowned for showing musicians how to understand and apply the principles of harmony *even if they don't read music!*

## KEYBOARD POSTER™



The Keyboard Poster™ is a beautiful work of educational art which makes visualizing and applying the principles of harmony as easy as DO RE MI. The easy-to-use music theory on the poster applies to piano, organ, synthesizers, and all other keyboard instruments.

• **FOUR OCTAVE**

**LIFE SIZE KEYBOARD • BASS & TREBLE KEY SIGNATURES • TABLE OF KEYS • CHORD & SCALE TABLE • TWELVE MAJOR SCALES • BASS & TREBLE CIRCLES OF FIFTHS • MORE!**

## ELECTRIC BASS POSTER™

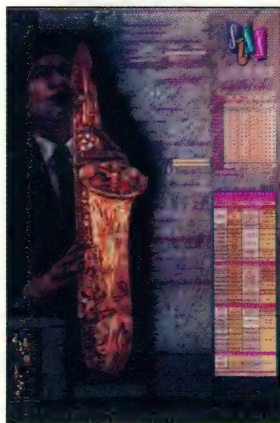


The Electric Bass Poster™ features a classic collection of vintage bass guitars and will show you how to play hot bass and how to hold down the rhythm section in any band playing today's popular music.

• **BASS KEY SIGNATURES**  
• **TUNING GUIDE • BASS**

**HARMONICS • COMMON CHORDS & SCALES • INTERLOCKING PENTATONIC SCALE FORMS • HOW TO ALTER SCALES & ARPEGGIOS • IMPROVISING A BASS LINE • MORE!**

## SAX POSTER™

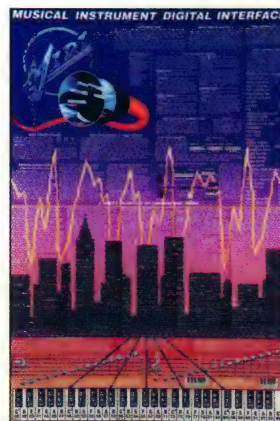


This poster will help players at every stage of their musical development. It has the world's all-time best sax fingering chart, a complete cross reference system for music theory, and it teaches any player to solo by showing how to play the blues.

• **FINGERING CHART • TREBLE CLEF • TABLE**

**OF KEYS • CHORD & SCALE TABLE • CIRCLE OF FIFTHS • PRACTICE TIPS • SAX EFFECTS & TECHNIQUES • TRANSPOSING FOR SAXOPHONE • BUILDING & IMPROVISING SOLOS!**

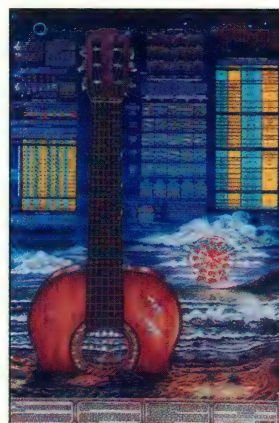
## MIDI POSTER™



**MUSICAL INSTRUMENT DIGITAL INTERFACE** is the electronic digital standard that has revolutionized music. Whether you're playing organ for your church or drumming in a rock band, an understanding of MIDI and how it works is essential for anyone who is serious about today's music.

• **MIDI NOTE NUMBERS • MIDI CONTROLLER NUMBERS • MODES • TROUBLESHOOTING • GLOSSARY OF MIDI TERMS • FLOW CHARTS • SOMETHING FOR EVERY MIDIOT!**

## GUITAR POSTER™



The original Guitar Poster™ has answered guitar players' questions for over a decade and is **still the most complete guide to the guitar ever made!** It contains a wealth of information for all guitar players, no matter what styles they play or their levels of musical accomplishment.

• **MOVABLE CHORD & SCALE FORMS • CHORD & SCALE TABLE • TABLE OF KEYS • NOTES OF THE NECK • BASIC CHORDS • OPEN TUNINGS • CIRCLE OF FIFTHS • GREAT STAFF • MORE!!**

## ROCK GUITAR POSTER™



This totally radical poster shows how to play the hard rock and heavy metal lead and rhythm guitar used by today's rockers. The poster explores rock styles in great detail, explaining the chords, scales, and the guitar techniques used by the biggest stars playing rock and heavy metal.

• **MOVABLE MINOR PENTATONIC ROCK SCALE FORMS • POWER CHORDS • NOTES OF THE NECK • TWO HAND TAPPING • WHAMMY BAR • METAL TIPS & TECHNIQUES • MORE!**

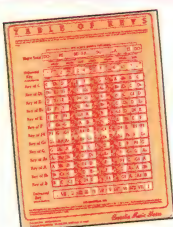
These big (24" X 36"), beautiful, educational art prints are only \$7.95 ea., or **LAMINATED to last, only \$15.95 ea.**

## MUSIC NOTES™

### DURABLE, PORTABLE MUSIC THEORY REFERENCE CARD SET

These two 8.5" X 11" heavy duty laminated cards will let you take the answers with you for the next 50 years. The **Table of Keys™** and the **Chord and Scale Table™** are the definitive charting, transposing and teaching tools for all musicians, no matter which instruments they play. Perfect for all songwriters, composers, band leaders, teachers, and students. **Only \$7.95 per set.**

**FOR ALL INSTRUMENTS, FROM ACCORDION TO XYLOPHONE**



### CIRCLE OF FIFTHS

This beautiful mini-poster (18"X25") of the treble key signatures is an enlargement of the famous "Guitar Player In The Sky" from the original GUITAR POSTER™.

The circle of fifths is the most widely used teaching tool in music, and this gorgeous art print will be used and appreciated by all musicians. Only \$5.95 regular or \$11.95 laminated.



AVAILABLE IN FINE MUSIC

### GIVE THE GIFT OF MUSIC! ORDER YOURS TODAY!

PLEASE SEND ME: ☐ GUITAR, ☐ ROCK GUITAR, ☐ ELECTRIC BASS, ☐ KEYBOARD, ☐ SAX and ☐ MIDI posters (regular @ \$7.95 ea. or laminated @ \$15.95 ea), ☐ CIRCLE OF FIFTHS mini-poster (\$5.95, \$11.95 laminated) and ☐ card sets (\$7.95/set) [Postage & handling is \$3 for the first and \$1 for each additional poster; Cards: add \$1.50 for the first and \$.50 for ea. additional set.] CA add 8.25% tax. Allow 6 weeks. (UPS ground [2-3 weeks] add \$4 extra [2-3 weeks]). FOREIGN  
AIR MAIL: Canada add p&h & \$4 extra; all

### FREE POSTAGE SPECIALS!

A. 5 posters ----- \$35

B. 4 posters ----- \$30

C. 3 laminated posters \$45

Add foreign air or UPS if necessary.

VISA/MC #:

Exp.  /  /  Sig.

NAME

ADDRESS

CITY/STATE/ZIP

MEI BOOKS 600 Harrison St. San Francisco, CA 94107



## ROLAND JV-1000

and over. Quantize resolution is always a sixteenth-note when you get to that screen, no matter what value you just used two minutes ago. We spotted only one exception: If you're creating events in the Micro Edit screen, the JV does remember which type of event you were creating the last time. We much prefer a system in which the last-used item is retained in every screen, because it's quite common that you need to use the same operation again and again.

- The patch select buttons are also used for sending bank select messages. The matrix of buttons that lets you choose preset, card, or internal patches also has a couple of options that switch to bank select transmission. Once you

understand the system it's perfectly sensible, but the first time you push the wrong button on this matrix and the Voice Expansion board stops responding on one of the MIDI channels (because you inadvertently transmitted a bank select of 64), you'll probably be as mystified as we were.

- At the upper right corner of the panel is a button labelled DISK MODE. This button is used, naturally, for saving and loading sequencer files. When you're ready to format your first disk, you'd probably expect to hit this same button. Wrong. Disk formatting is done by hitting SHIFT-MODE and then choosing menu option 4 (disk utilities) with the keypad or data wheel. When you're ready to save a configuration file to disk, you might expect to use either disk mode or disk utility

mode, but this command is found in configuration mode. A system in which all disk commands are grouped together is easier to use.

- Patch dumps are stored on disk (by the sequencer) not as patch files but as song files. If you use a sensible system of naming files, this isn't a problem, but some synthesizers with disk drives create distinct file types for patch data, which is more efficient and easier to work with. (On the other hand, the Korg 01/W doesn't let you name disk files at all, so the JV earns a few points here.)

- Two minor niggles about the hardware side: First, the JV-1000 uses the same non-standard power cable as the JD-990. Some of the Roland dealers we spoke to do carry the cables as spare parts, and some don't. It's too bad Roland doesn't use a nice standard three-prong cable, as it would be much easier to replace in an emergency. Second, the JV-1000 we used for testing created an exceptionally loud pop in the speakers when it was turned off. The owner's manual is quite explicit about telling you to turn off the speakers first, which is certainly a courteous reminder — but it would be better for the nerves of hurried, harried musicians if the instrument didn't make the pop in the first place.

**Disk Storage.** As you'd expect, the JV-1000's drive saves and loads songs (including MIDI files on MS-DOS disks) and stores and loads patch dumps (including bulk dumps from other instruments). When we tried storing the JV's own patches to disk, we discovered just how seriously the operating system lacks integration. Before the patches can be stored, they must be transmitted internally from the synthesizer section to the sequencer section, just as if the sequencer were in a separate box. The transmission takes as long as it would if a MIDI cable were used — 30 seconds or so for a full bank. When the transmission is complete, the sequencer's operating system takes over, allowing the dump to be stored to disk as a song file. The same operation must be performed in reverse when the dump is loaded back into the synth.

The storage facility works perfectly. Some people may even like being able to store a bulk dump at the start of each song file so as to load the synth memory with a different bank of patches for each song. When it comes to handling patch banks by themselves, however, storing and loading on the JV-1000 takes twice as long as on any other disk-drive-equipped synthesizer in the world, because of the extra step that's required.

**Off-Line Help.** The manuals shipped with the JV-1000 are infuriating. Most of the required information does actually seem to be present somewhere or other within their pages. The problem is not accuracy or thoroughness, it's comprehensibility. Finding the information you need is time-consuming, because any given section of the manual is incomplete. Functions are described in terse, somewhat garbled language, and the reader is given little or no information about how to access the functions (that is, what

# GOODMAN MUSIC



**World's Largest Selection of**  
**Keyboards • Computers • Pro Audio**  
**Digital Recording, MIDI Software**  
**Synthesizers, Workstations, Samplers**  
**Pro DAT's, Recordable CD, Multitrack**  
**CALL 1-800-842-4777**



UNIVERSAL CITY  
3501 Cahuenga Blvd. W  
(Lankershim exit off  
Hwd. Fwy. turn left)  
(213)845-1145  
(818)760-4430

MC, VISA, AMEX, OPTIMA, DISCOVER, DINERS, CARTE BLANCHE, APPLE & ROLAND CREDIT



Cajun to Classical. Gospel to New Age. Rock, Pop, Soul and Rap. Reggae and Jazz.

# SO MUCH MUSIC, SO LITTLE TIME

**What's good; what's bad. What's original; what's re-recorded. Find out in the *All Music Guide*—a better way to buy tapes and CDs.**

Have you ever spent \$15 on a tape or CD, and been disappointed with your selection? Did you ever buy an album thinking it was a group's essential recording only to find that it was a poor quality compilation? Are there areas of music you'd like to explore but you don't know where to start collecting? If you answer yes to any of these questions, you need the *All Music Guide*.

The *All Music Guide* reviews by category and artist over 23,000 recordings in 27 music categories. Eighty top music critics recommend the best choices and identify essential purchases or artist milestones. Before you go shopping read what the critics say about the category or artist you are collecting. Find albums from your favorite periods of your favorite artists.

## **The *All Music Guide* helps you**

- ▲ Learn more about 6000 artists and groups with introductions and album recommendations
- ▲ Explore new kinds of music and build a collection that gives you lasting enjoyment
- ▲ Find out more about different kinds of music with Music Maps, artist and composer profiles, feature essays, and more
- ▲ Save money by selecting music you'll enjoy



**"Broad coverage, knowledgeable comments, and low cost make it a valuable resource"**

—*Booklist*

**"The Rolling Stone Album Guide, a mere 800 pages, pales by comparison."**

—*San Francisco Chronicle*

**"...the definitive reference book for the eclectic music consumer. Our rating: ★★★★★"**

—*Los Angeles Daily News*

**"Unbelievable!...A dream come true..."**

—*San Francisco Examiner*

THE *ALL MUSIC GUIDE* IS AVAILABLE AT MUSIC AND BOOKSTORES EVERYWHERE INCLUDING:

**Northern California:**  
Books Inc.  
A Clean Well Lighted  
Place for Books  
Cody's Books  
Keplers  
Hear Music

**Southern California:**  
Book Soup  
Duttons Brentwood  
Duttons Bookstore  
**Seattle:**  
University Bookstore  
Elliot Bay Book  
Company  
Tower Books

**Denver:**  
The Tattered Cover  
**Houston:**  
Bookstop  
Hastings Records &  
Tapes  
**Dallas:**  
Taylors  
Bookstop

**Nashville:**  
Davis Kidd  
Booksellers  
Tower Books  
**Atlanta:**  
Oxford Bookstore  
**Minneapolis/St. Paul:**  
Odegard Books

**Cleveland:**  
Booksellers  
Record Den  
**Chicago:**  
Krochs & Brentanos  
Waterstones  
**Detroit/Ann Arbor:**  
Borders  
Schoolkids Records

**Philadelphia:**  
Univ. of Pennsylvania  
Bookstore  
Chester County  
Books  
**Washington, D.C.:**  
Olssons Books &  
Records

**New York Area:**  
Coliseum Books  
Shakespeare &  
Company  
HMV USA  
**Boston:**  
Boston University  
Bookstore  
Wordsworth  
HMV USA



# FIRST ANNUAL SOUTH AMERICAN Pro Audio Expo

MAY 25 - 27, 1994  
BUENOS AIRES ART CENTER LOFT  
BUENOS AIRES, ARGENTINA

Audio  
Sound  
International

YOU CAN'T AFFORD TO MISS IT!



Welcome to South America, and the wonderful opportunity it brings to you in the nineties. As you may already know, the growing stability of many of the countries, and an abundant musical appetite, reflect South America's increasing need for new audio, visual, and interactive technologies. Countries such as Argentina, Brazil, Chile, Colombia and Venezuela, have developed tremendous recording and broadcasting industries. They, as well as other South American countries, will now have the unique opportunity to have hands-on experience with the latest equipment, so vital in making intelligent future purchases.

We look forward to having you and your company be a part of the powerful market that South America has become.

*For more information contact Chris Adams*

 400G High Point Dr. Hartsdale, NY 10530 USA Tel: (914) 993-0489 Fax: (914) 328-8819



## ROLAND JV-1000

buttons to push) or how they may interact with other, related functions. Again and again, terms are used — “assign buttons,” for example — that do not correspond to what is printed on the front panel of the instrument itself. To find out what the terms mean, you have to flip to the front of the manual and look at the front panel diagram. With some perseverance, anybody who has spent a few years in the synth/MIDI world should be able to master the JV-1000 using nothing but the manuals for reference — but the learning curve would be gentler if the documentation was better, and with this sort of documentation we can't honestly recommend the JV-1000 for anyone who is new to synthesizers, unless they can set aside a few extra bucks for long-distance calls to Roland's product support staff.

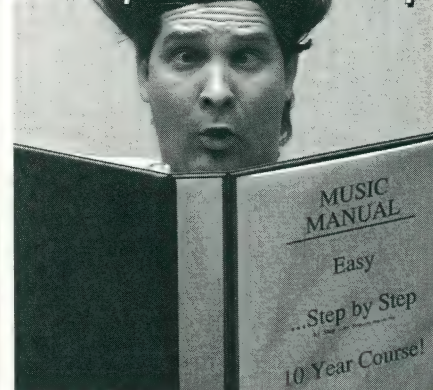
**Conclusions.** Our first few days with the JV-1000 were an exercise in frustration, primarily because of the tangled operating system and the dismal, wretched owner's manuals. Any high-end workstation synthesizer takes time and patience to learn, however. Once we got comfortable with the JV way of doing things, we began to appreciate the instrument's strengths, which are considerable. We also uncovered a couple of weaknesses that weren't apparent at first glance.

We could see a MIDI musician enjoying this

instrument and, with a little patience, getting a lot of great music out of it. As a stand-alone synth for a gigging musician who doesn't want to tote a rack of gear, or as a master keyboard for a player who *does* have a rack of tone modules to drive, it could be a stellar performer. Even so, it's a little pricey for an entry-level user, and the experienced professional may be reluctant to put up with certain of its idiosyncrasies.

Both learning the JV-1000 and operating it would be easier if it were designed from the ground up as a single piece of gear, rather than being created out of older components that have undergone few modifications, if any, in being repackaged in the new unit. Basically, the JV-1000 illustrates the classic definition of a camel as a horse that was designed by a committee. It will carry an exotic musical cargo safely across the burning desert sands . . . but it's a stubborn and unlovely beast. The problem is not, for the most part, with the individual components: The JV-80 synth engine sounds wonderful, the MC-50 is a very adequate hardware sequencer for most purposes, and the Sound Canvas has a strong reputation as a source of inexpensive yet high-quality sounds. If these three elements had been seamlessly woven into an integrated operating system, the JV-1000 could have exactly the same list of features and be a far better performer. If the user interface was as polished as the sounds that the JV makes, it would be a whole different instrument. ■

Throw your manuals away!



Audio, Video, and CD ROM format **Training Programs** for **Finale**, **Cakewalk**, and most major music programs - **Plus - general MIDI** theory and other electronic/music related subjects. Call for **FREE** information.

**EVS** Effective Video Solutions  
MAC and PC versions available,  
TEL (210) 656-2427,  
FAX (210) 656-8024,  
Visa, MC accepted.

**-1-  
800-  
650-  
2427**

## Sam Ash Music gives you more for less. More Service. More Selection. More Satisfaction. Less Hassle.

For almost 70 years, musicians have been coming to Sam Ash Music for the best selection of top-brand merchandise. Our nine superstores feature the largest inventory of musical equipment in the world. Any and all questions answered by our staff of musician/experts.

*Call today and find out why Sam Ash sells more musical equipment than all the other retailers who advertise in this magazine combined!*

"THE WORLD CLASS MUSIC STORE"

**Sam Ash**  
MUSIC STORES

Can't get through? Write for specific prices.  
SAM ASH MUSIC STORES • DEPT. K  
PO BOX 9047  
HICKSVILLE, NEW YORK • 11802-9047

**1-800-4-SAM ASH**

In Pennsylvania: (609) 667-6696

In New Jersey: (201) 843-0119  
(908) 572-5595 or (609) 667-6696

In New York State:  
(516) 333-8700 or (718) 347-7757

SAM ASH MUSIC INSTITUTE  
**SAMI**

**THE SAM ASH MUSIC INSTITUTE**  
MIDI & ENGINEERING PROGRAMS • WORLD-CLASS FACILITIES  
162 WEST 48th STREET, NEW YORK CITY (212) 719-4572

## TIMING ACCURACY METER



Reveals timing problems in MIDI sequencer systems

Shows how closely a drummer plays with a click

Enables you to sync triggered samples with your music tracks (.1 millisecond accuracy)

Exposes drummer / bass player timing problems

Checks sync of virtual tracks & tape recorders

Perfect tool for timing training and rhythm exercises

Call 800-880-8776 to try a Russian Dragon  
risk-free for 2 weeks.

If you are not satisfied, return it for a refund.

Purchasers: Bob Clearmountain, Walter Afanasieff, Shane Keister, Ed Seay, Trevor Horn, Tom Lord-Alge, RJ Mutt Lange, Michael Boddicker, Roger Nichols, Eddie VanHalen, Joey Kramer (Aerosmith), Bob Rock, Phil Ramone, Jeff Lorber, Keith Cohen, Paisley Park, A&M, Capitol, Warner Br, Ardent, Aire...

Overnight Delivery Available. Credit Card or COD  
210-525-0719, Sales 800-880-8776, FAX 210-344-3299  
Jeanius Electronics, 2815 Swandale, San Antonio, TX 78230



*I'm confused. In your interview with Trent Reznor (March 1994), he refers to the "Ober-Moog" as a synth that never saw the light of day. Yet on page 95 of that same issue is an advertisement from Oberheim showing an instrument that looks very much like the Ober-Moog Reznor talks about. What gives?*

Monti Sigg  
Austin, TX

At the time Reznor was interviewed, the status of the Ober-Moog was in question. Some speculated that the project had been canned, others thought it was still in the works but far from being released. And, because the editorial staff doesn't usually see the ads until after the issue is printed, we didn't know that a product release was imminent. Much to the pleasant surprise of many, the Ober-Moog (officially called the Oberheim OB-Mx) is now rolling off the assembly line. To help set the record straight, Oberheim's Malcolm Doak sent us this report.

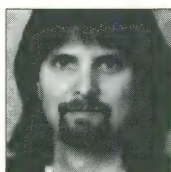
? ? ? ?

The new Oberheim OB-Mx is the final production version of the idea that began years ago with the pre-release Ober-Moog. The "M" in the OB-Mx stands for Moog (or Malcolm, depending on who you ask). Here's a brief chronology:

- **July 1990.** Gibson Guitar Corporation acquires Oberheim.
- **July 19, 1990.** Gibson asks for a product that can be completed in six months to introduce at Winter NAMM — a product that will revitalize Oberheim. Drawing on tried and true designs and code, the Ober-Moog is proposed. The original idea is to saw an OB-8 into quar-



G R E G R U L E



ters, put it in a rack, and incorporate the now public domain Minimoog filter into a two-voice analog, programmable, rack-mount synth.

- **Four days later.** A now-questionable decision is made to move from the proven Z-80 processor to the 80C196. Slowly but surely, the project begins skidding out of control.

- **Fall/Winter 1990.** Proof-of-concept prototypes are completed. Matching the Oberheim S.E.M. for color and font style, the front panel and control labels mimic an OB-8 with Minimoog filter knobs.

- **January 1991, Winter NAMM.** The Ober-Moog debuts. By the end of the show, the new marketing department has decided the Ober-Moog should include an LCD on the front panel. Panel #2 is completed in about two weeks.

- **Spring/Summer 1991.** All new voice boards, pot boards, processor boards, and motherboards are built and tested. At the end of April, one of the three members of the original design team resigns. VCO problems be-

leaguer the unit's progress.

- **January 1992, Winter NAMM.** Sporting its third front panel, the Ober-Moog appears at its second NAMM, but still with no delivery date.

- **1992.** More people bail. Front panel #4 arrives. The original unit is engineered to the point of incomprehension. With a size approaching critical mass, menus over six pages deep, a less than adequate LCD, staggered sandwich voice cards, audio jacks on individual circuit boards, and miles and miles of wire, the unit is moving further and further away enduring the rigors of a competitive marketplace. Heads are scratched, fingers pointed. The plug is pulled.

- **January 1993.** A design team led by Don Buchla and Keith McMillen is presented with the concept and asked to restart the project. Less than one year later, the final design is in place and production begins. The unit's features include: true analog sound generation, a large, easy-to-read LCD (2-line x 40-character), live front panel that's accessible via MIDI, no pages or hidden functions, Oberheim and Minimoog filters, individual audio outputs, modular voice card expansion, comprehensive MIDI implementation, multitimbral operation, sample & hold modulation, and resonant filters (eight-octave tracking).

- **March 1994.** The first OB-Mx ships. Retail price is set at \$2,149 for a two-voice unit. A two-voice expander card (of which up to five can be installed) is \$769.

—Malcolm Doak, Oberheim

*Recently I purchased a Kawai K5. Although it's an excellent synth, its programming is difficult enough that I'd rather go with a ROM card. My problem is I've been unable to find third-party sound developers who support the K5 — except for Kawai, and they want over \$100 per card. Does anyone offer K5 sounds for less?*

Peter Vacjovsky  
Traverse City, MI



After several false starts, the Oberheim OB-Mx "Ober-Moog" has finally arrived.

Due to the high cost of ROM and RAM cards, sounds offered on cards are usually expensive, as you well know. But we found one developer who sells K5 sounds on floppy disks for a fraction of the price: James Chandler, Jr., 204 California Ave., Chattanooga, TN 37415, (615) 877-6835. His K5 collection (\$30 per disk, nine banks on each) is available for Atari ST, Amiga, IBM-PC, or Macintosh. The ST and Amiga versions are formatted for Dr. T's X-Or or K5 editor/librarian, the PC version for Syn-tonics K5 editor/librarian, and the Mac version for Chandler's own downloader program (included on the disk). If you don't have a computer, you can send Chandler blank RAM cards, and he'll load them for you (call for prices). If we missed any K5 developers, drop us a line and we'll pass along the info.





## Money-Back Guarantee

You may end your subscription  
at any time, for any reason.  
Just let us know and we'll send  
you a prompt refund for all  
unmailed copies.

SAVE  
69%

# KEYBOARD

- ☐ Yes, I want to subscribe and **save 69%** off the cover price. I get 2 YEARS FOR THE PRICE OF ONE, 24 monthly issues for only \$29.95!
- ☐ I prefer 12 issues for \$19.97, that's 59% off the cover price.
  - ☐ Bill Me
  - ☐ Payment Enclosed

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Price good in U.S. only. \*Canada/Mexico/International surface mail add \$15 per year. International air mail add \$40 per year. All non-U.S. orders must be prepaid in U.S. funds by International Money Order only. Please allow up to six weeks for delivery of first issue. \*Canadian GST included. Permit # 124513540.





NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

---

# BUSINESS REPLY MAIL

FIRST CLASS MAIL    PERMIT NO. 1286    BOULDER, CO

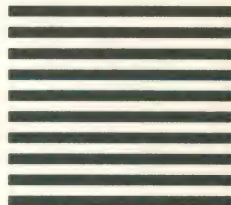
---

POSTAGE WILL BE PAID BY ADDRESSEE

## KEYBOARD

P.O. Box 50404

Boulder, CO 80321-0404





# DISCOVERIES

TITUS LEVI



**W**HEN I FIRST HEARD CHARLIE BUEL'S music, I thought it was a put-on. The loops, the combo-organ approach to rhythm tracks, the cheesy-thin synth tones — it seemed like a calliope player's mad-scientist fantasies of electronic music. With titles like "Cocktails on Mars" and "Desert Bossa Reprise," the tongue-in-cheek campiness was even more obvious. But as with any good comedy — particularly good *music* comedy — a lot more goes on here than giggles, snickers, and guffaws. The music seduces with craft as well as humor. Camp and clarity lean on one another, each drawing from the other's energy.

Buel's craft is one of economy. His melodies are rendered clearly without being trite or ordinary. The rhythms are distinct and multi-layered. The intent and expression of the music is concise; not a motion is wasted. If need be, a piece may consist of a minute of moody shifting chords or a beat-box rhythm behind a slightly out-of-kilter sing-song tune. The instrumentation may only include a Casio keyboard; occasionally an accordion, played by Discoveries alum Nick Ariondo, or a voice might be added. Some pieces embrace headier, sadder, and darker themes ("Buel's Tears," "Ceremonial Music," "Time is Running Out"), while others dance toward Funkadelic/techno/grunge/cranked-up disco grooves. All of them cut the superfluties

away and get right to the bone of the music.

When not composing, improvising, or performing in the San Francisco area, Buel serves as president for the Society of Gay and Lesbian Composers (SGLC).

No one would ever confuse Steve Wilde's work with Buel's. Wilde's strong attraction to Baroque music is evident in his love of counterpoint — or, as he puts it, "turning everything into a melody and juggling things all at once." At first listen, it sounds too academic, but repeated hearings bring out the originality of Wilde's approach. While not heart-wrenchingly expressive, his music rests on a foundation of formidable composition chops: There's a continuous flow in the dynamic relationships between parts. Plaintive voices, beautifully organized, drift in his slow pieces; a buoyant sense of dance powers an *allegretto* for five voices.

Wilde also writes and performs music for fusion projects, ranging from pleasant jazz-pop

## CHARLIE BUEL

**Style:** electronic composition.

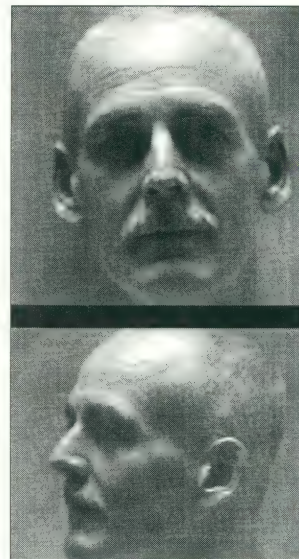
**Age:** 51. **Influences:**

parents, Hertha Spassof ("my first piano teacher"), Guillaume Dufay, Claude Debussy, Harry Partch, Karlheinz Stockhausen, Pierre Boulez, Pauline Oliveros, Jimi Hendrix, Ali Akbar Khan, birds, streams, environmental sounds.

**Main Instruments:**

Casio SK-1, SK-5, & MT-70, Tascam Portastudio 424.

**Contact:** 1831 Lexington Ave., San Mateo, CA 94402.



to more torrid jams. To pay the bills, he works in Southern boogie-rock and C&W bands, and gives music lessons. Though "not quite in the lounge scene," his gigs don't pose any creative challenges. But his lessons can cover unexpected territory: "One guy asked me to teach him a lick from a Guns N' Roses song. I showed him the lick, then he paid me and left. That's still one of the strangest musical experiences I've ever had." ■

## STEVE WILDE

**Style:** neoclassical electronic, jazz-rock fusion, R&B, funk, rock 'n' roll.

**Age:** 39. **Influences:** parents,

J. S. Bach, Domenico Scarlatti, McCoy Tyner, Jimmy Smith, Jan Hammer, Chick Corea, Jeff Beck, Alan Holdsworth, Steve Morse, John Scofield.

**Main Instruments:** Ensoniq ESQ-1 and EPS, Oberheim DMX, Yamaha RX17, Knabe grand piano.

**Contact:** 1820 N. Washington Ave., Clearwater, FL 34615. (813) 447-0438.



## HONORABLE MENTION

### GREGG WAGER

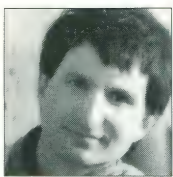
**Style:** post-minimalist, electronic.

**Contact:** Heerstr. 612, 13591, Berlin, Germany.

Gregg adds his own timbral spin to the new minimalist mode. He's focusing on guitar more than keyboard these days; his language is fluid yet crisp no matter which instrument he uses.

Titus Levi, founder of the California Outside Music Association, spends his free time struggling through graduate economics courses at U.C. Irvine. If you'd like to appear in Discoveries, send a cassette of your best material (full name, age, style, influences, performance credits, future plans, and equipment), a publishable phone number and address at which readers may contact you, and a clear black-and-white photo of yourself with your keyboard setup. Photos should be labelled with your name and the photographer's name and address. All styles of music will be considered. Due to number of submissions, material cannot be returned, and applicants will not be contacted unless accepted. Send all correspondence to Titus Levi, 5135 Hanbury St., Long Beach, CA 90808. Titus also invites Discoveries alumni to keep in touch with news about career advances, and would like to hear from more artists who use non-keyboard triggering devices or interactive computer software.





# REEL WORLD NOTEBOOK

J E F F R O N A

## THE DAY THE EARTH DIDN'T STAND STILL

**E**ACH MONTH I TRY TO WRITE A little bit about my professional experiences as a musician here in the City of Angels. However, this particular month, I had an experience so overwhelming that little else I did compares. I speak of course about the terrifying experience of the Northridge earthquake, also known in some circles as "land-surfing."

It starts with a sound. A low, visceral noise like a train both distant and right in your face. Then comes the shaking. It begins very small and then crescendos to unbelievable proportions. There is no other feeling like it. The real terror of the earth shaking is in that crescendo. Will it continue to grow, or is this the apex of its violence? I hear the sounds of things shattering throughout my house, of objects hitting the floor and breaking. It's like someone holding a half-empty matchbox in their hands and shaking it as hard as possible. The sound of the house and its holdings mixes with the thundering sound of the earth itself.

If it grows more, when will the house come crashing down on me? For a few brief moments at 4:31 A.M. on January 17th, I was asking myself this question. I'm still alive now, but how much more will there be? Wait a second more and ask the question again. In the meantime, there is a need for action. I run through the pitch dark (all the lights went off in a brief blue flash) with my wife to get to our infant daughter, who has no protection from the shaking. When we get to her in the next room, the sound and the shaking begin to subside. We are still standing. In all of that, our girl never even woke up until we picked her up. She must have wondered what the whole commotion was, but she just wanted to go back to sleep.

Now silence and darkness. I put on shoes, got a flashlight and walked around the house. It looked as though everything had fallen. There was broken glass everywhere from pictures that had leaped from the walls. Bookshelves had emptied onto the floor. Along with the books were candlesticks and other small glass and ceramic mementos. I found some of my collection of ocarinas on the floor. The only one that had broken was one my late grandmother brought me from Czechoslovakia. It was the last thing of hers I still had. Now she is just in my memory.

A few aftershocks hit, and each time my heart would leap into my throat and every muscle in my body would tense. I would run back to my wife to be sure she was handling it all

right, but it made me feel better to see her as well.

After the shocks subsided, I had to get to my music studio to see the bad news. I knew there would be problems. On the way, I went into the kitchen to find that almost all of our dishes



**I GRITTED MY TEETH AND  
WALKED INTO MY STUDIO.  
THE FIRST THING I COULD  
SEE WAS THAT MY BIG  
SPEAKERS WERE GONE.  
I TRIED TO GET TO WHERE  
THEY WERE, BUT PILES  
OF DATS AND CASSETTES  
BLOCKED THE PATH.**

and glasses had decided to stay on their shelves. A few broken glasses were on the floor along with all our spices and other pantry items.

I gritted my teeth and walked into my studio. The first thing I could see was that my big speakers were gone. I tried to get to where they were, but piles of DATs and cassettes blocked the path. I peered over my mixer to see that they had top-

pled to the floor, pulling several other wires with them. I scanned the rest of the room with the flashlight, and couldn't believe it. Except for books, tapes, and disks heaped onto the floor, everything looked okay. I pulled all the plugs out of the wall sockets. Whenever power would get restored to my neighborhood (and who knew how long that could take), it could be erratic and potentially damaging to any electronic equipment plugged in at the time.

Another aftershock. I made my way through the mess back to the bedroom to see that everything was still fine. The aftershocks were still very intense, so I took down all the pictures that were still on the walls. I went outside for the first time to get a portable radio from my car. I saw other flashlights of my neighbors. We stood together in the street to check with each other, and fortunately everyone was in one piece.

I was not prepared for what I saw when I looked up into the sky. There were more stars than I had ever seen in Los Angeles in my life. It was breathtakingly beautiful, thanks to the fact that every light for miles was now off. Had I been in a better frame of mind, I would have stayed and stared up for a long, long time.

With flashlight and radio, I scanned around the outside of my house, but found no cracks, broken glass, or other outward signs of damage. Then I noticed that the cement block wall between me and my neighbor had partially toppled. Most radio stations were off the air, but one all-news AM station was already on the story. It was a big quake centered in the San Fernando Valley, which is where I live. Later announcements calculated that the epicenter of the quake was about ten miles from my house, and people were awakened by it hundreds of miles away. Freeways had collapsed, buildings had fallen or were no longer safe for inhabitants. Most of the area was without water, gas, or electricity. People were missing. There were fires. This was serious.

I went back inside and tried to call some members of my family. At first there was no phone service. But within an hour, my phone rang. I was able to contact my family and a few friends. Thankfully, everyone was shaken (no pun) but all right.

*Jeff Rona is a composer, synthesist, writer, and educator in Los Angeles. He was chairman of the MMA for five years, and is currently coordinator of the UCLA Extension electronic music program.*



# CD Sampler for only \$3<sup>00</sup>

GuitarPlayer®

KEYBOARD®

BASS®  
PLAYER

The publishers of Guitar Player, Keyboard, and Bass Player present:

## NOW HEAR THIS

THE NEW MUSIC CD SAMPLER

**11 TOP ARTISTS**

featuring

hot releases by:

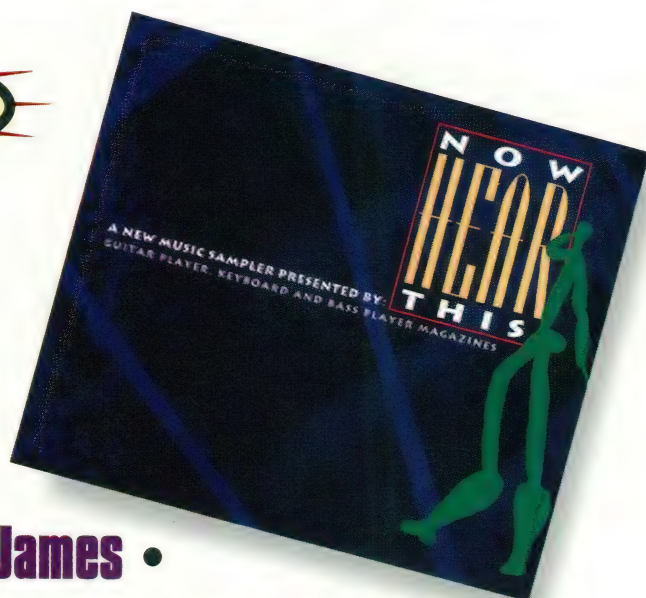
**BB King** • **The Hellecasters** •

**Aimee Mann** • **Taj Mahal w/ Etta James** •

**Michael Manring** • **Scott Henderson & Gary Willis** •

**Plan B** • **Patty Larkin** • **Open Skyz** • **Blackfish** • **Baby Animals**

How do we do it? At three bucks, no one's making any money but we want you to hear some of the best new music being made today. So send in your order for **NOW HEAR THIS** and keep in touch with what's hot!



Send me \_\_\_\_ copies of **NOW HEAR THIS**

Enclosed is \$3.00 per disc, postage & handling included (\$4.00 for foreign orders)

Send your check/money order to:

**NOW HEAR THIS**

GPI

411 Borel Avenue, Suite 100  
San Mateo, CA 94402

NAME \_\_\_\_\_

TELEPHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

Allow 4-6 weeks for delivery

Be on the lookout in these pages for **NOW HEAR THIS Volume 2**—Available in May!



## THE WINNER, AND NEW CHAMPION!



Our Service and Selection will  
***KNOCK YOU OUT!***

- Keyboards • Multitrack Recorders • Guitars
- DAT Recorders • Signal Processors • MIDI Software

*Rock 'n Rhythm*

Div. of:  
The Woodwind & The Brasswind  
19880 State Line Rd  
South Bend, In. 46637

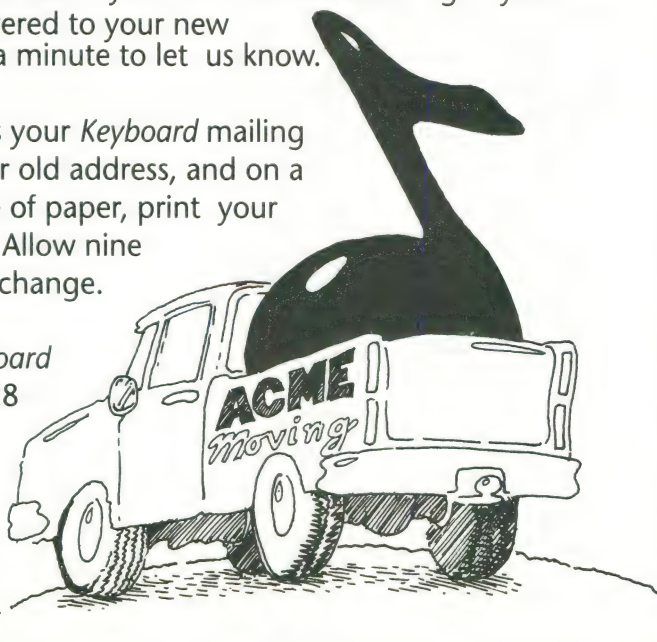
CALL OR WRITE FOR FREE CATALOG: **1-800-348-5003**

## Hitting The Road, Jack?

Moving is never fun. It's always difficult to keep track of all the little details. But if you want to continue to get your *Keyboard* delivered to your new address, take a minute to let us know.

Just send us your *Keyboard* mailing label with your old address, and on a separate piece of paper, print your new address. Allow nine weeks for the change.

Send to: *Keyboard*  
P.O. Box 58528  
Boulder, CO  
80322-8528



## REEL WORLD NOTEBOOK

By 7 A.M. the sun started coming up, and I have never been so glad to see the dawn in my life. In the light of day, the mess of my house didn't seem quite so bad. I checked in with a few other friends who lived near the epicenter of the quake. Most of those phone lines were still down. With no electricity, our options were pretty simple. We went for a walk in our neighborhood to relax and see how everyone else was doing. Most people were out in front of their homes or in the street talking with other neighbors. People we had never met would come up to us and ask how we were, and how our baby and house fared. I realized that unlike anything else I had experienced, this was a common shared event in the lives of every single person I saw that day. This quake hit us all, regardless of income, profession, or lifestyle. We were all in this together, we all made it, and now we all were facing the prospect of recovering from the damage to our possessions or property. But the surprising theme of the day was, "Well, at least we are all okay." There was compassion and pathos like I had never seen in a big city, and not just in my immediate neighborhood. I drove to check on some friends I couldn't reach, and when I stopped in those neighborhoods it was the same thing. Strangers walking up to strangers to say hello, to ask how they got through it, to share their story, and to say, "At least we're here to talk about it!"

By the end of that day, we had our electricity back. We saw the amazing amount of damage on the TV news. For three more days we had to boil water intended for drinking or washing food. It took several more days for electricity, water, and gas to be restored to the rest of the San Fernando Valley, but the speed at which the healing had begun was astonishing. We *had* made it. Some of our friends lost their houses, their job places, or both, but they were all fine. However, not everyone made it. Over 50 people lost their lives to this disaster, which lasted all of about 15 seconds.

So why write about all of this for *Keyboard* magazine? Priorities. Not just mine, but all of ours. The musical world that gets journalized between these covers is of vital importance to us — professionals, students, and amateurs alike. These are the tools and techniques with which we express ourselves. But if you lost everything you have in the next 15 seconds, what would be important then? The same thing that's important right now — that you're here to read this and I'm here to write it. That's important. The rest is simply what we *do*, and what tools we might use to do it. Since the day of the quake, the local papers are filled with information on how to be prepared for the next big quake. How do you prepare for an earthquake? Protect those things that are most valuable in your life, make sure that your loved ones know how you feel about them, and get a good insurance policy for your music gear.

Until next time, remember: Disasters are God's way of telling you that you own too much stuff. ■



"A wonderful introduction for someone who is wondering what all the multi-hyper fuss is about. All of the senses are addressed, with numerous illustrations, many interesting comments and notes, large, easy to read format and a gallery of color illustrations. *CyberArts* is a worthwhile addition to your bookshelf and will make a great gift." —*CyberEdge Journal*

## NEW BOOK

Available at your favorite bookstore or directly from Miller Freeman  
Order Toll Free  
(800) 848-5594

"Just think of what happened to music when someone combined electricity and guitars; now imagine what happens when someone combines computers and art. Anyone who wants to understand new art forms like cyberart, computer video, moving holography, three-dimensional sound and virtual reality will find enlightenment, or at least creative thinking, in this collection of writings by artists and computer hackers."

--Peter Lewis, *New York Times*

# TO BOLDLY GO WHERE NO COMPUTER HAS GONE BEFORE...

"An extremely valuable book for virtual reality researchers and designers. . . Filled with engaging and inspiring accounts of design in cyberspace. . . Inspires the imagination."

—Hilary McLellan, *Virtual Reality Report*

It's the '90s, and computers today can help you seek out new realities and new dimensions, where the worlds of science and art actually meet. And meld.

This new frontier is called interactive multimedia – and *CYBERARTS: EXPLORING ART & TECHNOLOGY* helps you probe it, showing you how others thrive there.

The new book is a collection of essays and commentaries that investigate computer technology and the new territories it yields when it merges with art, music, and entertainment. Topics include: content distribution – ISDN, ADSL, and CD-ROM ■ sound design for computer software ■ image compression ■ the multimedia network ■ multimedia authoring systems ■ freedom vs. compensation ■ the art of building virtual realities ■ and more.

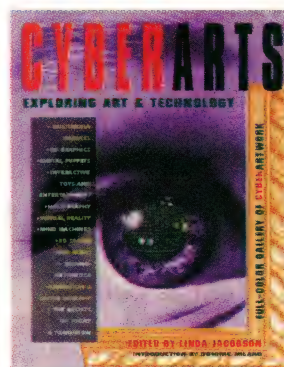
*CYBERARTS: EXPLORING ART & TECHNOLOGY* features presentations by globally recognized multimedia visionaries. Considered the "movers and shakers" of the computer and arts communities, they include: Trip Hawkins, Carl Machover, Ted Nelson, Marc Canter, John Perry Barlow, Myron Krueger, Vincent John Vincent, Jaron Lanier, Steve Tice, Brenda Laurel, and other interactive pioneers.

## TAKE A WALK THROUGH THE CYBERART GALLERY

You'll find a special 16-page, 4-color section of cutting-edge work in multimedia and electronic arts. This "gallery" showcases reproductions of still and animated graphics, interactive video programs, unique multimedia applications on various platforms, and more.

Whether you're a computer programmer, user, or gamesman – or just want to learn how computers and creativity interact – *CYBERARTS: EXPLORING ART & TECHNOLOGY* takes you where no book has gone before.

336 pages, illustrated, 8-1/2" x 11", softcover  
ISBN 0-87930-253-4, item #677, US\$24.95



## CONTENTS INCLUDE:

1. New Technologies and The Arts
2. Music and Sound
3. Visual Imagery, Animation, and Graphics
4. Interactive Media: Theories, Tools, Results
5. Old Laws for New Technologies?
6. Cyberspace and Virtual Realities
7. A Look to the Future

## PUBLISHER'S 100% SATISFACTION GUARANTEE

Please rush me \_\_\_\_\_ copies of *CYBERARTS: EXPLORING ART & TECHNOLOGY* (item #677) at US\$24.95 each plus shipping/handling.\* If dissatisfied, I may return the books within 10 days for a full refund.

☐ Check enclosed [add sales tax in CA(\$2.06), GA(\$1.25), IL(\$2.00), NY(\$2.06), and TX(\$2.06), and add GST in Canada (\$1.75)]

☐ Charge my: ☐ Visa ☐ MasterCard Exp. date \_\_\_\_\_

Card # \_\_\_\_\_

☐ Bill me (books will be shipped only when payment received)

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone ( ) \_\_\_\_\_

FAX ( ) \_\_\_\_\_

Signature \_\_\_\_\_

(required on ALL orders)

\* Shipping/handling: Per copy, add US\$5 in U.S.; US\$8.50 in Canada; US\$15 overseas airmail

**MAIL OR FAX TO:** Miller Freeman Inc., 6600 Silacci Way, Gilroy, CA 95020 • FAX (408) 848-5784

**OR CALL:** (800) 848-5594 or (408) 848-5296

K405





# INSIDE THE MUSIC

DAVE STEWART

## A LEGEND IN HIS OWN LUNCHTIME

I'VE BEEN HAVING THIS DREAM FOR years: My first professional band (named, embarrassingly, "Egg") hold a reunion concert. There is no prior discussion or rehearsal, so I find myself in the dressing room five minutes before showtime in a state of cosmic unpreparedness. Frantically, I ask the bass player what tunes we are going to play, but his answer is indistinct. I rifle my memory for vestigial shreds of repertoire, but fail to recall even the titles of the songs, let alone their contents — not surprising, since the band broke up in 1972. Strangely, the other two members seem quite confident and relaxed, and we walk out on stage to a warm reception from an unfeasibly large crowd. Then the real nightmare begins: The band launch into some music which I dimly recognize but cannot play. I try to jam along, but that causes utter confusion; the bassist and drummer lose the beat, then stop and glare at me accusingly. It's all my fault. In one particularly vicious variant of the

nightmare, my keyboards mutate into surreal new forms such as pinball machines or bunches of flowers, but nevertheless I still feel compelled to try to play them. I still sweat over the memory of the night when I had to work out how to coax a major scale from a row of long-stemmed daffodils. Trouble was, the buggers never played the same note twice.

When this dream recurred (for about the five hundredth time) a few weeks ago, I decided enough was enough. Back in the dressing room after another disastrous show, the silence of the audience still ringing in my ears, I confronted the other two. "That's it for me, guys. I'm not doing this any more. If you want to reform the band, find another keyboard player. I'm tired of waking up screaming." This being a dream, an attack with sharpened axes could easily have come next, but my ex-colleagues wisely opted for non-violence, nodding sagely and muttering agreement. I awoke feeling refreshed, and somehow liberated.

Two weeks later, the dream came back. True

to their word, the Egg guys were finally accepting retirement gracefully (or had found another keyboard player — I pictured some other poor fool tossing and turning in his sleep, bemused to find himself in a rock group with two complete strangers), but this time it was my old band National Health (1976-1979) who spontaneously decided on a nocturnal reunion without warning me. We were already onstage, so there was no time to argue. Mercifully, the keyboards didn't turn into geraniums, but were still unplayable by virtue of the fact that someone had set them all up with their keys facing downwards. (So hard to get quality staff nowadays.) While I rushed around trying to put matters right, the band jammed unconvincingly on a

*Though partly of Scots ancestry, Dave Stewart is no relation to the rising death-metal home-organ star Eric McWhirter. He is, however, the angry half of Rykodisc recording duo Stewart/Gaskin, stars of stage, screen, and job centre.*

Ex. 1. The intro to Pip Pyle's "A Legend in His Own Lunchtime," which appeared on National Health's second album under the title "Binoculars."

Slow Asus4 A7sus4 Amaj7/6 F9/A D6/9 Eb9/D D9 Bb9/D

C7#4 C6/9 C9 Ab9/C Bbm7sus4 Gb9/Bb Dbmaj7#4 Emaj7/6

"A Legend in His Own Lunchtime" written by Pip Pyle. © 1981 P.R.S. Pip Pyle.



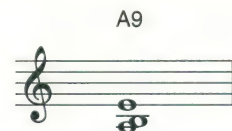
12-bar blues, ignored by an audience of school children who sat with their backs to the stage, eating lunch and watching a Popeye cartoon on a large screen at the rear of the hall.

Do you suffer from nightmares like these? Frightened to tell your friends for fear of ridicule? Then why not jot them down and send them in to *DAVE STEWART'S HORRIBLE DREAM COMPETITION*? It might be therapeutic to get them off your chest, and give us all a good

laugh at the same time. All dreams must have a *musical* theme, and the senders of the most horrible, or funniest, examples will see their demented ramblings immortalized in print in the world's most popular and prestigious keyboard magazine — and here in *Keyboard*, too. [Ed. Note: *Very funny.*]

Meanwhile, back in the desperately unfunny world of chord voicings, I notice that in recent articles I appear, for some reason, to have been

waxing lyrical about one particular chord:



I don't want you to get the impression that it's the only one I know, but I would like to show

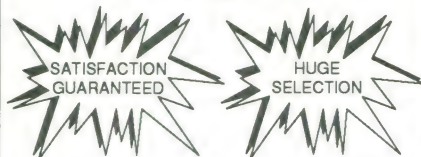
Ex. 2. A re-arranged version of the intro to "A Legend in His Own Lunchtime."

Asus4/9/C# Ebmaj7/9/#4 er. . . Am7/9/b6 D7/6/9/#4 Abm6/9 Gm11

Gm11 C7#4 Em11 Abmaj7/6/9 Bbmaj7#4 Emaj7/6/#4 A6/9/#5

C9/Ab Ab/Gbmaj7 (or Gbmaj7/6/9/#4) F major (no, this is not a misprint) C9/E Dm9 Fmaj7/C Ab/Gbmaj7





ALL  
MAJOR BRANDS



MUSIC'S BEST KEPT SECRET  
CALL NOW

**1-800-241-6330**

MON.-THUR. 12:00-8:00 FRI. & SAT. 10:00-5:00  
EASTERN STANDARD TIME

FAMILY OWNED SINCE 1930  
7144 Market St. Boardman, OH 44512  
(216) 758-9432

# ATTENTION MUSIC STORES

Give your customers  
what they want.

## KEYBOARD

The magazine  
that delivers.

Guaranteed Sale Program

Call Today  
**1-800-592-5928**

## INSIDE THE MUSIC


you a rather nice piece of music based on this shape before consigning it to the dustbins of eternity. (Now *there's* a good group name.) Unlike the piece featured in the November 1993 issue which showed the A9 (or Aadd2, if you prefer) chord held over a variety of left-hand harmonic movements, this sequence demonstrates how the chord itself can move around over a series of mainly static bass notes (see Example 1). The music is actually the intro to a song called "A Legend in His Own Lunchtime," written by my old friend and cohort, drummer Pip Pyle.

As you can see, the chordal movement throws up a lot of harmonic possibilities. Particularly like the downward chromatic motion of bars 2 to 7, culminating in the old favourite, B $\flat$  over D bass, in bar 8. It did occur to me that the atypical shape in bar 9 (C7#4) might have been a mistake, a quite understandable drummer-type slip of the fingers made while attempting this more stylistically congruous voicing —



— but I haven't brought it up with Pip for fear of being punched in the face. If it is a mistake, it is a welcome one, as it provides a nice change of harmonic inflexion at a good strategic point in the sequence.

"A Legend in His Own Lunchtime" is a wistful, lyrical song, though you would not think so from the title. When we played it live with National Health (yes, the lot who are now threatening to take over from Egg in the scary nocturnal gigs department — I thought if I gave some of their music a little publicity, maybe they'd leave me alone), I would play the intro on a quiet organ sound, gingerly picking out the bass line on organ pedals. (Though no Barbara Dennerlein in the realm of feet, I could just about manage this slow passage.) Later in the song, after a couple of verses and 2-1/2 hours of frenzied soloing (this was art rock, remember), the intro would come back, but this time the chords were played in a loud, twisted, barely recognizable fashion (devised by me, naturally), to make sure the audience were kept in a state of hypertension. When we recorded this song (it appeared on the group's second album with a new title, "Binoculars," for some reason long since consigned to the dustbins of eternity), I took great delight in arranging the new chords for a brass-and-woodwind section, adding some more mad new notes wherever I could squeeze them in. Example 2 shows the re-arranged intro, showing how I re-voiced Pip's original chords to get a far less tranquil effect! These voicings are not suitable for children.

I await your Horrible Music Dreams with keen anticipation. 

# SEND NO MONEY NOW!

That's right, we want to make subscribing to *Keyboard* so easy that you don't even need to send us any money now.

All you have to do is send us your name and address on a piece of paper, and tell us that you want to be "billed" \$19.97 for a 1 year subscription to *Keyboard*.

It's that simple. Your first issue will be in the mail as soon as your request is processed.

Send to:  
**Keyboard**  
P.O. Box 58528  
Boulder, CO 80322-8528

Price good in U.S. only. \*Canada/Mexico/International surface mail add \$15. International air mail add \$40. All non-U.S. orders must be prepaid in U.S. funds by International Money Order only. \*Canadian GST included - Permit #124513540. CA residents please add 7.25% (\$1.45) sales tax.



# NAMM '94: ON SOLID GROUND

Continued from page 110

(\$349), a software package for the AV line that provides six tracks of digital audio, automated punch-in/out, real-time editing, six bands of parametric equalization, QuickTime support, MIDI and SMPTE sync, and CD-ROM control.

While we're talking digital audio, **Opcode** is projecting an April release date for Studio Vision Pro (\$995), which integrates digital audio recording into version 2.0 of Vision (see Keyboard Report, March '94). Studio Vision AV (\$595) is designed for use in the home studio and in multimedia applications. The program, which combines MIDI sequencing with digital audio, uses Apple's Sound Manager to record and play back audio, thereby eliminating the need for additional audio cards when used with Apple's Quadra 840 AV or Centris 660 AV computers. (Other low-cost computer/soundcard configurations are also supported.) Features include fully automated mixing, SMPTE triggering of audio events, and non-destructive editing.

In the it's-about-time department (yeah,

yeah, we know you've been busy): Opcode announced Overture (\$495), their entry into the professional notation market. The program includes "tear off" tool palettes, real-time and step entry, graphic editing of MIDI data, scaling of all objects, nudging notes by one pixel using the arrow keys, and extensive text capabilities. EPS files can be created from any area of the score; a new PostScript music font is included.

Windows users can now get into the world of Opcode sequencers. Vision for Windows (\$249) features loop recording, real-time editing, drum machine-style note entry, graphic and list editing, and SMPTE sync. For \$299, you can get the program bundled with a MIDI interface and an ISA serial card. And if you need to learn the basics of music or brush up on your skills, the company is prepared to provide you with Claire, the Personal Music Coach (Macintosh, \$129.95). Designed to help you hone your ear-training, sight-reading, and music theory chops, Claire provides customized instruction via its on-board exercises, and keeps track of your progress. Unlike real live music instructors, Claire teaches you without the use of whips. (We know, that's disappointing news for some of you.)

**Mark of the Unicorn** was showing a new version of Digital Performer that supports

waveform editing from within the program and SMDI sample transfer. The same technology was presented as a stand-alone program for the Akai DR4d digital recorder (price and availability to be announced). MOTU also started shipping Digital Performer version 1.41Y, designed for use with Yamaha's CBX-D5 digital recorder. The new version contains front-panel controls for the CBX-D5, and allows the automation of the unit's digital effects and internal mixing. New editing profiles for their editor/librarian Unisyn include the Alesis Quadrasynth, Digitech DHP-55, and Korg X3 and 05R/W. Unisyn for Windows (price to be announced) is coming this summer. Version 1.4 of Mosaic (\$595), the company's notation program, offers a new set up dialog that automates the process of score and part creation and formatting. Other new features include a transposable chord font (with guitar fret symbols), exporting of EPS files, and FreeMIDI compatibility, which allows the use of patch names and the sharing of information with other FreeMIDI applications.

The ever-popular Cakewalk sequencer, from **Twelve Tone Systems**, is now available in an entry-level configuration. Called Cakewalk Home Studio (\$169), the Windows-based sequencing/notation program features

**SINGERS!**  
**REMOVE VOCALS**  
**FROM RECORDS AND CDs!**



**SING WITH THE WORLD'S BEST BANDS!**  
An Unlimited supply of Backgrounds from standard stereo records! Record with your voice or perform live with the backgrounds. Free Brochure / Demo Record.  
**LT Sound**, Dept. KB-2, 7980 LT Parkway  
Lithonia, GA 30058 (404) 482-4724  
Manufactured and Sold Exclusively by LT Sound  
**24 HOUR PHONE DEMO LINE: (404) 482-2485**

## MOVING?

Allow 9 weeks for change. Send your new address (please print) with your old mailing label from Keyboard to:

Keyboard  
P.O. Box 58528  
Boulder, CO 80322-8528



**WEST L.A. MUSIC**

We Sell Every Major Brand of Keyboard,  
Digital Piano and Synthesizer.

We have the friendliest & best informed staff anywhere!  
Everything for MIDI, live performing  
and home studio recording.

All Major Credit Cards accepted. We ship everywhere.  
"Where The Pros Shop"



**WEST L.A. MUSIC**  
11345 Santa Monica Blvd. Los Angeles, CA 90025  
(2 Blocks West Of The San Diego (405) Freeway)  
**(310) 477-1945 or (818) 905-7020**



# NAMM '94: ON SOLID GROUND

a multitrack staff view with up to 16 staves per page, real-time faders, graphic controller drawing and editing, piano-roll and event editing, and support for embedding and playing back digital audio files.

**MiBAC Music Software** announced Music Lessons for Windows (\$119). Based on the company's successful Mac version, Music Lessons contains 11 drills designed to help you learn and read music. Need more lessons?

**Advanced Gravis** wants to teach you piano — using, of course, the Gravis Personal Piano System (\$495). The system, designed for the PC and Windows, includes the teaching software Piano from Musicware, the Ultrasound audio board, a MIDI controller keyboard, Acoustic Research Model 222 powered speakers, a MIDI interface, and MIDI utility software.

Despite being busy setting up new offices in the U.S., **Emagic** managed to come up with some cool new products for the show. Starting at the top: Logic and Logic Audio version 2.0 (Mac, \$399 and \$699, respectively). Upgrades to the already powerful programs include enhanced quantize parameters, OMS

support, integrated MIDI Machine Control, unlimited staves, transposable chord symbols, and PostScript score output. Logic Audio also adds simultaneous scrubbing of MIDI and audio data and the ability to make groove templates from audio data. In the machine control implementation, emulation of a number of Alesis BRC functions is available, including track slipping, unlimited locate points, and full transport control. Micro Logic (\$199) is an integrated sequencing and notation package for Windows. In addition to recording and editing of tracks, the program offers event, piano-roll, and score editors, 960 ppq resolution, unlimited tracks and sequences, real-time non-destructive editing, assorted record modes, unlimited staves, full-page WYSIWYG page editing, and support for text entry.

Not ones to overlook the opportunities in the educational market, Emagic also announced the availability of HearMaster, an ear- and rhythm-training program for the Atari and Macintosh computers. The software comes bundled with MIDI-Master, a program for learning about MIDI, for \$99.

New from **Dr. T's** is the Windows-based sequencing and notation program QuickScore Deluxe Professional (projected list price: under \$99). Features include 16-track/stave display, real-time scrolling during

playback and recording, support for all clefs and musical symbols, and support for MIDI and all popular soundcards. The company also announced their plans to release a new version of Singalong for Kids, the CD music program that features traditional children's songs along with music notation and animation. The new version will feature songs from around the world, performed in both their original versions (using native artists and traditional instruments) and English-language translations.

More notation information: **Grande Software** introduced NoteScan, which can be used to scan printed sheet music into either Macintosh or IBM computers. According to the company, the scanned data can be edited and transposed using existing notation programs. The results can then be printed or used to produce Standard MIDI Files. Plans are to release NoteScan with Temporal Acuity's notation programs Nightingale and Music Printer Plus, and with other notation programs in the future.

• • • •

Had enough? Us too — for this month, anyway. Stay tuned for Part II: recorders, mixers, drum machines, computer gizmos, and more MIDI madness.

## OBERLIN

Summer 1994

### Two Workshops in Electronic & Computer Music

July 17-23 & July 24-31

Gary Lee Nelson, Director

- MIDI software
- Sound Synthesis
- Algorithmic composition
- Sampling & sound editing
- Synthesizer programming
- Digital effects processing
  - Sequencing
- Alternate controllers
- Music printing

*For more information, contact:*

Office of Outreach Programs  
Conservatory of Music, Oberlin College  
Oberlin, Ohio 44074  
216-775-8044

# Rock n Roll

## MUSIC, INC.

# • WE SUCK LESS •

## 1-800-264-7625 (ROCK)

Call Us For Prices On  
Studio & Stage Equipment!



# Vintage Synthesizers

## CONTENTS:

**HEARTS OF THE MODERN ERA  
SYNTH INDUSTRY:** *American  
Synthesizer Builders • The Rise  
and Fall of Moog Music • The  
Rise and Fall of ARP Instruments  
• The Euro-Synth Industry • It  
Came from the Music Industry*

**MODULAR SYNTHESIZERS:**  
*Buchla's First Modular System •  
EMS VCS3 & Synthi A/AKS • The  
World's Most Dangerous Synth:  
Keith Emerson's Moog • ARP  
2600 • EML Synthesizers • E-mu  
modular synths*

**FAMOUS ANALOG SYNTHS:**  
*Minimoog • Oberheim SEM •  
Sequential Prophet-5 • Yamaha  
CS-80 • Chroma*

**DIGITAL SYNTHS & SAMPLERS:**  
*PPG Wave • Digital Keyboards  
Synergy & GDS • Fairlight CMI  
Emulator*

**MISCELLANEOUS:** *Mellotron •  
Paia Electronics Synthesizer Kits •  
Vox Continental • Combo Organs  
of the '60s • Roland MC-8 •  
Sequencer History in a Nutshell •  
Linn LM-1*

**THE PATCHBAY:** *Buying a Vintage  
Synth • Street & Dealer Prices •  
Support, Service, & Sales • MIDI  
Retrofits & Converters • Glossary*

## Groundbreaking Instruments and Pioneering Designers of Electronic Music Synthesizers

The synthesizer is only 30 years old, but the speed of innovation has made its history seem much longer, and musicians are discovering that "new" doesn't necessarily mean "better." Many synthesizers once considered obsolete have qualities and musical characteristics that aren't duplicated on the newer instruments.

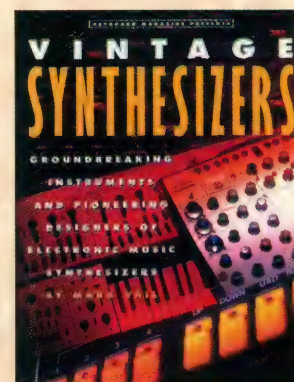
*Vintage Synthesizers* looks at the modern history (1962-1992) of the electronic music synthesizer, and includes:

- In-depth interviews with pioneering synth designers
- Brief histories of select groundbreaking instruments
- Performance techniques from top musicians
- Dealers' tips on finding and buying vintage synths
- Comprehensive pricing and production information
- Over 200 photos, including a full-color gallery section
- Complete glossary, plus priceless trivia

This is a book for all those synth players who "long to rediscover the sound of analog oscillators beating wildly against each other in an orgy of warm fatness that would expose any modern-day digital synth's sound as so much anemic wheezing pap," as Dominic Milano remarks in his foreword to the book.

Author **Mark Vail** joined the editorial staff of *Keyboard* magazine in 1988 and took over the "Vintage Synth" column from Bob Moog in early 1990.

**Order  
toll-free  
800  
848-5594**



**VINTAGE SYNTHESIZERS:**  
Groundbreaking  
Instruments and  
Pioneering Designers  
of Electronic Music  
Synthesizers  
\$17.95, 240 pages, 20  
color photos, 185 B&W  
photos, 8-1/2 X 11,  
paperback,  
ISBN 0-87930-275-5

## PHONE, FAX, OR MAIL YOUR ORDER NOW!

### 100% SATISFACTION GUARANTEED!

☐ Please rush me \_\_\_\_\_ copies of VINTAGE SYNTHESIZERS (Order #683) at \$19.95 per copy, plus shipping and handling (\$5.00 per copy in the U.S., \$8.50 per copy in Canada, and \$15 overseas airmail). Please add sales tax: \$1.65 in CA, NY, TX; \$1.00 in GA; \$1.60 in IL; and \$1.40 Canadian GST. If I am not satisfied, I may return the book within 10 days and my money will be refunded.

☐ Check enclosed

☐ Bill me (book will be shipped upon receipt of payment)

☐ Charge my credit card ☐ Visa ☐ MasterCard

Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_

Name \_\_\_\_\_

Street Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Telephone ( ) \_\_\_\_\_

Signature \_\_\_\_\_

All orders must be signed to be valid

**MILLER FREEMAN BOOKS / RUSH ORDER**  
6600 SILACCI WAY, GILROY, CA 95020  
PHONE (800) 848-5594 or (408) 848-5296  
FAX (408) 848-5784

K405



## LETTERS

Continued from page 126

What else could explain his slam of the Pet Shop Boys album *Very* [Feb. '94] when the rest of the world has nothing but praise for it? Robert! Hello? Did you even bother to listen to the lyrics of this powerful album? Do you even have the emotional depth to appreciate lyrics? You have an obvious tendency to focus on keyboards, virtually neglecting lyrics, melody, and other factors that make songs worth hearing. A crap song that's got nice keyboards is still crap and doesn't deserve any praise whatsoever. A review that focuses only on one aspect of an album is useless, so stop doing it. Of course sometimes you call a great album a great album (i.e., Red Red Groovy's 25), but that seems to be nothing more than luck.

Robert M. Hedin  
Racket Club  
Minneapolis, MN

In his review of Jean-Michel Jarre's latest album, *Chronologie* [Sept. '93], Robert L. Doerschuk compared its style to that of Kraftwerk, Tangerine Dream, and even Elton John. In addition, he expressed hope that the old stars would soon be replaced by younger musicians. These statements are incomprehensible to me. A musician does not become a prototype if he or she composes idiosyncratic music. Musicians, even those who use the same technology to create their music, can never be compared to one

another because every human being makes music in a unique way. Similarly, every person's way of listening to music is different. If Doerschuk can't hear anything special in Jarre's works, his opinions cannot be generalized.

Actually, I can't understand record criticism in general, since most reviews simply catalog the opinions of the critic. I think record reviews shouldn't be published at all. Instead, there should be more presentations of different music makers and their music.

Nina Jurvanen  
Lappeenranta, Finland

[Robert L. Doerschuk responds: "Although Jurvanen misinterpreted the references to Kraftwerk and other artists in my Jarre review, she does raise a fundamental question: What is the point of reviewing? We could have a fascinating exchange of opinions on this point, which is, of course, the point: Reviews, at least the ones I write, are not intended to be read as definitive judgments but rather as one person's (informed, one hopes) opinion. The proper response to an album critique, as I see it, is not to either blindly accept it or reject it with the emphatic snap of a closing mind. Instead, treat the review as the first sentence in a dialog, real or imagined. See whether you can find answers to what you read that might expand your perceptions of what is good or bad in art. And feel free to send me your responses; letters from readers challenge and enrich me nearly as much as the music I hear."]

## Garth Hudson Update

I hate to be persnickety, but contrary to Jon Lord's opinion [Jan. '94], *Music from Big Pink* was recorded in New York and L.A.; Bearsville Studios weren't even built in 1968. Further, Garth Hudson has been a synthesist for years. He retired the Lowrey organ years ago. Those "quivering timbres" you refer to in your review of *Jericho* [Mar. '94] are accomplished on a couple of synth racks. Richard Bell plays most of the piano on *Jericho*, along with a bunch of guests. You did get the accordion credit correct. Interview Garth, why don'tcha?

Pat Brennan  
Chicago, IL

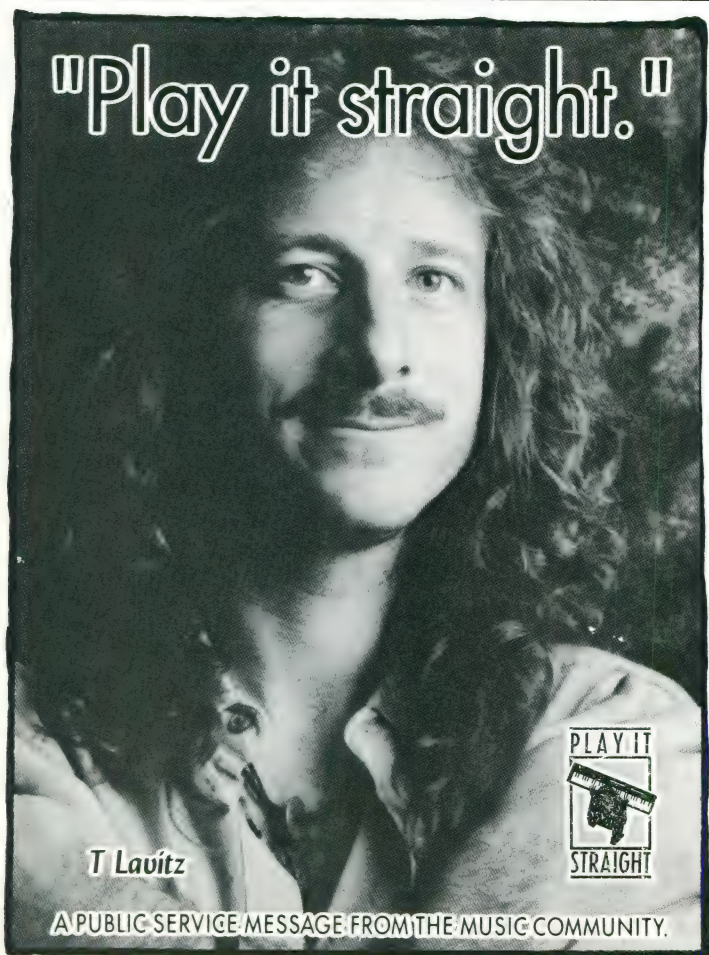
[We'd love to. Too bad he turned us down. Garth, we're still interested.]

## Piano Nightmares

I enjoyed your article on how to shop for an acoustic piano [Dec. '93]. In 1992, I visited most of the piano dealers in lower New England in an attempt to become educated about what to look for in a piano. On many occasions I visited Michael Yeager's piano store. Unfortunately, I could not afford his beautiful Mason & Hamlin grand pianos. I should have listened to him and purchased one of the Mason & Hamlin uprights he also displayed. But, no, I had to have a grand, a PSO (piano-shaped object).

Well, I have one, made in Korea, much to my dismay. Although beautiful to the eye, it has

Continued on page 159




**"Play it straight."**

T Lavitz

PLAY IT STRAIGHT

A PUBLIC SERVICE MESSAGE FROM THE MUSIC COMMUNITY.



**Is Something Not Right?**

Have you ever opened your mailbox and found your issue of *Keyboard* with torn, wrinkled, or missing pages? To receive your replacement copy,

write us at:

**Keyboard/ P.O.Box 58528/Boulder, CO 80322-8528**



# KEYBOARD<sup>®</sup>

## BACK ISSUES!

JUST  
\$7.00  
EACH

- 1977**  
**Jan. '77** Journey's Gregg Rolie, Ramsey Lewis, Peter Nero.  
**Feb. '77** Billy Preston, 2-Piano Music, The Clavinet, Corea Tips.  
**Jul. '77** George Duke, Count Basie, Bob Moog Column, Beach Boys.  
**Nov. '77** Herbie Hancock, The Rhodes Piano, Earl Hines.  
**Dec. '77** Dave Brubeck, Andre Watts, Tom Coster, Pop Organ.
- 1978**  
**Jan. '78** Liberace, Jaki Byard, Harpsichordist Igor Kipnis.  
**Feb. '78** Chick Corea, Corea Solo, Sounds of "Star Wars."  
**Apr. '78** Van Cliburn, Jean-Michel Jarre, L.A. Jazz Pianists.  
**Aug. '78** Jimmy Smith, Tedd Joselson, "Greensleeves," Henry Mancini.
- 1979**  
**Jan. '79** Cecil Taylor, Ragtime Piano, "The Entertainer."  
**Feb. '79** Rick Wakeman, Carla Bley, Leonard Pennario, Pop Organ.  
**May '79** Dr. John, Paich & Porcaro Of Toto, Dick Hyman.  
**Jun. '79** Suzanne Ciani, Steve Reich, The Bosendorfer Piano.  
**Jul. '79** Denny Zeitlin, Playing Studio Parts, Lorin Hollander.
- 1980**  
**Feb. '80** Peter Nero, Emanuel Ax, Amp Basics, Nero Solo.  
**Jul. '80** Roger Powell, Art Tatum Runs, Organist Bill Irwin.
- 1982**  
**Apr. '82** Earl Hines, Peter Nero Solo, Terry Riley, OMD.
- 1984**  
**Jan. '84** George Winston, Organist Jimmy McGriff, Warren Zevon.  
**Feb. '84** Playing Lead Synth, Jazz Piano Trios, Peter Serkin.  
**Mar. '84** Josef Zawinul, Ray Charles, Sight Reading Hints.  
**Apr. '84** Joe Sample, Corea Solo, Lorin Hollander, Tom Coster.  
**Oct. '84** IMPROVISATION SPECIAL: How-to, Why-to, When-to.  
**Nov. '84** Rare Bill Evans Record, Tony Banks, Classical Improvisation.  
**Dec. '84** Wendy Carlos Record, Mark Isham, Eurythmics' Dave Stewart.
- 1985**  
**Jan. '85** Cecil Taylor, Toto Record, Teaching Piano, Moog Column.  
**Feb. '85** Billy Cobham On Drum Machines, Hollywood's Jerry Goldsmith.  
**Apr. '85** Suzanne Ciani Record, Richie Beirach Solo, Daryl Hall.  
**May '85** England's Howard Jones, Build A Vocoder, "Misty" For Organ.  
**Jun. '85** SYNTH PROGRAMMING SPECIAL: Getting Started, Patches, Ciani.  
**Jul. '85** Patrick Moraz Record, Kate Bush, Lennie Tristano, MIDI column.  
**Aug. '85** Keyboards In Japan, Tomita Record, Yamaha, Roland.  
**Oct. '85** 10th ANNIVERSARY SPECIAL: Chick Corea Record, Synth Technology.  
**Nov. '85** Mark Isham Record, Talking Heads' Jerry Harrison, Bernie Worrell.  
**Dec. '85** The Piano's Future, Samplers, Keyboards with Dire Straits & Sting.
- 1986**  
**Feb. '86** Do-it-yourself Software, 1st Electronic Film Score, Nick Rhodes.  
**Apr. '86** New Age Aaberg Solo, Jean-Luc Ponty, Simple Minds.  
**Nov. '86** Journey's Jonathan Cain, Wendy Carlos Record, Petruccianni.
- 1987**  
**Jan. '87** EXPERIMENTAL MUSIC SPECIAL: Sampler Record, The Stars, History.  
**Feb. '87** Frank Zappa, Zappa Record, Synth Glossary I.  
**Mar. '87** TV's Paul Shaffer, Ashkenazy, Larry Fast, Glossary II.  
**Apr. '87** Philip Glass, Glass Record, Arranging I, Use Old Gear.  
**May '87** Human League, Tom Coster Record, Kitaro, Arranging II.  
**Jun. '87** SEQUENCER SPECIAL: What It Is, Tips, Applications, Creativity.  
**Jul. '87** Wind Synths, Bruce Hornsby, Soviet Record, USSR Keyboardists.  
**Aug. '87** Jeff Lorber, Inside Roland, Pete Jolly, The Cure, New Age.  
**Sep. '87** Michael Omartian, DX711, Banks & Marinelli, Blues.  
**Oct. '87** Miles Davis And Keyboards, Prophet 2000, Horace Silver.  
**Nov. '87** Todd Rundgren, Roger Powell Record, MIDI Mixing, Rock Rhythms.  
**Dec. '87** Accordion Revival, Zydeco Record, Roland D-50 Clinic.
- 1988**  
**Jan. '88** ONSTAGE SPECIAL: Performance Tips, Equipment Uses, Experiences.
- Feb. '88** Stewart Copeland On Rhythm, Little Richard, David Frank Record.  
**Mar. '88** Computer Applications, L.A.'s David Foster, 19-tone Scales.  
**May '88** Thomas Dolby, Toto Solo, Moog On Moog, The Synth Industry.  
**Jun. '88** BACK TO BASICS SPECIAL: ABCs of Technology, Sampling Record.  
**Jul. '88** Corea & Hancock, Rock Arranging, Programming the ESQ-1.  
**Aug. '88** PIANO SPECIAL: Jazz Performance, Piano Future, Digital Pianos.  
**Sep. '88** Sting's Keyboardists, Patrick O'Hearn Record, Schools.  
**Oct. '88** New Age And Synths, T Lavitz Record, Metal Solo, IBM PC.  
**Dec. '88** Bon Jovi's David Bryan, John Tesh Record, Fats Waller, M1 Clinic.
- 1989**  
**Jan. '89** Third-party Sounds, Corea & LaVerne Record, Elton John Solo.  
**Feb. '89** Randy Newman, Billy Taylor, Practicing, Art Of Noise.  
**Jul. '89** Mike + The Mechanics' Paul Carrack and Adrian Lee, FZ1 Clinic.  
**Nov. '89** Rolling Stones' Keyboardists, Multi-Effects User's Guide, Chuckii Booker.  
**Dec. '89** Laurie Anderson, Multi-Effects Buyer's Guide, Margaret Leng Tang.
- 1990**  
**Apr. '90** Tears For Fears, Tony Hymas, Atari ST Clinic, Nine Inch Nails.  
**May '90** Jam And Lewis, The Future Of MIDI, "Blue" Gene Tyranny, Yamaha SY77.  
**Jun. '90** Jane Child, Amiga Multimedia Tools, Harry Partch, Passport Encore.  
**Jul. '90** Jonathan Cain, Mixer Shootout, Gershwin Meets MIDI, Ryuichi Sakamoto.  
**Nov. '90** Baby Face, Dr. John, The Music Of Twin Peaks, Tips for Opcode Vision.
- 1991**  
**Jan. '91** Prince's Keyboardists, Opcode Studio Vision, Roland S-550/330 Clinic.  
**Mar. '91** Keyboards In The Grateful Dead, Ensoniq EPS Workshop, Korg S-3.  
**May '91** Patrick Moraz, Alesis SR-16, Yamaha SY77 Programming Clinic.  
**Jun. '91** Deee-Lite, How To Get A Record Deal, E-MU ProCussion, Roland MV-30.  
**Jul. '91** Andrew Farris of INXS, Wavestation Programming Made Easy, Roland JD-800.  
**Aug. '91** Rick Wakeman & Tony Kaye, IBM MIDI Starter Kits, Roland JX-1.  
**Sep. '91** Iain Baker of Jesus Jones, Philip Glass, Passport Pro 4 Power Tips.  
**Oct. '91** M.C. Hammer's Michael Buckholtz, Ensoniq SD-1 & SQ-2, Yamaha QY10 Tips.  
**Nov. '91** HAMMOND B-3 SPECIAL: Tips, History, Photographs, And More.
- 1992**  
**Jan. '92** Thomas Dolby, Jazz Soloing tips by Billy Childs, Cyberpunk Revisited.  
**Feb. '92** Genesis, Frank Zappa's Universe, Digidesign Pro Tools, Alesis D4.  
**Mar. '92** PIANO JAZZ SPECIAL: Tips, Trade Secrets, Techniques, Transcriptions & more.  
**Apr. '92** 1992 NEW GEAR SPECIAL: Piano Jazz Part 2, Korg M1 Clinic.  
**Jun. '92** Keith Emerson, Faith No More's Roddy Bottum, Ensoniq VFX Clinic.  
**Jul. '92** Affordable Digital Recording, Ensoniq DP/4, Roland R-70, Cubase 3.0.  
**Aug. '92** Wendy Carlos, Affordable Mixers, Richie Beirach, Roland FP-8, Wersi CPF1.  
**Sep. '92** Tori Amos, Wendy Carlos Part 2, C-Lab Notator Clinic, Akai MX1000.  
**Oct. '92** Windows 3.1: Has the Mac met its musical match?, Richie Beirach.  
**Nov. '92** Country Keyboards: New Sounds & New Players, Alesis ADAT, Yamaha SY22.  
**Dec. '92** 1993 BUYER'S GUIDE: 48 Multi Effects & Drum Machines Reviewed.
- 1993**  
**Jan. '93** Scoring The Simpsons, Prince's Tommy Barbarella, New Digital Gear.  
**Feb. '93** David Bryan, The Past, Present & Future of MIDI, Kurzweil K2000 Tips & Secrets.  
**Mar. '93** Keith Jarrett, General MIDI, Gallery of Weird Gear by Bob Moog, Ensoniq ASR-10.  
**Apr. '93** M1 MONSTER SOUND SPECIAL: Over 5,000 M1 Sounds Reviewed.  
**May '93** NEW GEAR SPECIAL, Depeche Mode, Historic Motown Sessions.  
**Jun. '93** Bruce Hornsby, SCSI Survival Guide, Comprehensive Guide to Combo Organs.  
**Jul. '93** Vintage Synths, Jazz Piano Master Class, Digidesign Session 8, Akai S3000.  
**Aug. '93** CD ROM - The Hows, Whys & Whats, Peter Gabriel, EPS-16+, Yamaha QY20.  
**Sep. '93** Marcus Roberts, Ensoniq TS-10, ADAT Power-User Clinic, Roland JW-500.  
**Oct. '93** Paul Shaffer, Pete Townsend, Hammond XB-5, Tascam Digital Recorder.  
**Nov. '93** Home Studio Solutions, New Gear & Sounds, Bruce Hornsby - A Private Lesson.  
**Dec. '93** PIANO BUYER'S GUIDE: Digital & Acoustic, Sampled & Synthesized.
- 1994**  
**Jan. '94** Jurassic Rock: Al Kooper, Jon Lord, Felix Cavaliere. Plus, Korg i3, Roland AX-1.  
**Feb. '94** Digital Piano Modules Tested, Chick Corea Private Lesson, Roland Sound Canvas.  
**Mar. '94** Nine Inch Nails, New MACs & PCs, Korg 01/W Power Tips, E-Mu Morpheus.  
**Apr. '94** Keith Emerson, Frank Zappa, Hand Injuries-Causes & Cures, Opcode's OMS

## ORDER INFORMATION

To order Keyboard back issues, just fill out this order form indicating your selections, and send it along with your payment to: **Keyboard Back Issues, P.O. Box 105448, Atlanta, GA 30348-5448** or call toll free 1-800-444-4881.

☐ Check/Money Order Enclosed  
☐ VISA ☐ MasterCard

Please make selections according to month and year.

U.S. Canada Foreign

Price Each		\$7.00	\$7.00	\$7.00
Shipping/Handling ea. +		FREE	\$2.00	\$3.00
<b>Cost Each</b>	<b>=</b>	<b>\$7.00</b>	<b>\$9.00</b>	<b>\$10.00</b>
Number Ordered	X			
<b>Total Enclosed</b>	<b>=</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>

Card No. \_\_\_\_\_

Expire Date \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Please allow 4-6 weeks for delivery. All non-U.S. orders payable in U.S. dollars by VISA, MasterCard, or International Money Order only.



# CLASSIFIEDS

Buying or selling instruments through our Classified Ads offers you convenience, a big marketplace, and a wide range of instruments and prices. However, buying mail order does have its drawbacks, too. Keyboard suggests the following guidelines to help the buyer and the seller in these transactions: 1) Get a written description of the instrument, which should include the serial number; 2) Get front and back photos of the instrument; 3) Get a written purchase agreement, with a 24-hour approval clause allowing the buyer to return the instrument for a full refund if it does not meet his/her reasonable expectations.

## SHOWS/EVENTS

**CENTRAL N.J. MUSICIAN'S FLEA MARKET** - May - Call (908) 359-0124 for recorded information.

## INSTRUMENTS

**ANALOGICS SELLS AND SERVICES ANALOG!!!** Analog synthesizer support is our only job. We buy, sell, trade, and service!!! Prophet-5 and 10 MIDI kits \$125.00, Prophet-2000 memory expansion \$165.00, OB-8 MIDI kits \$175.00. Also, ARP 2600 replacement modules. We ship COD and only sell what we have in stock! Others sell, but do they service? If you can't get it fixed, call us. **ANALOGICS, 5261 MAPLE AVE. EAST, GENEVA, OH 44041. (216) 466-6911.**

Hammonds, Leslies, digital pianos, synthesizers, sheet music. Stardisk Music Catalog, PO Box 417, College Station, TX 77841.

**Keyboard Salespeople Needed.** Career opportunity. Join one of the fastest-growing, best-located, and oldest stores in the country. Great pay, benefits, and hours. Spanish-speaking a plus. Please send resume to Caruso Music, 20 Bank St., New London, CT 06320 or call (203) 442-9600, ext. 410. Discretion assured.

## Wireless MIDI

*"When every note counts."*

**Affordable, believable  
and available now!  
Call 1-800-386-4554**

**AQUILA**

The Spirit of Freedom

Made in U.S.A.

PC/MIDI software/hardware. Computer systems. Sequencers. Lib/Editors. Scoring. Education. Entertainment. Amps. Others. **Excellent support and service.**

Visa/MC/AmEx. **10:00 a.m.-10:00 p.m. EST.** For prices and catalog call **Compu-Co: (203) 635-0013.**

**HAMMOND TONEWHEEL ORGANS**, Leslie speakers. Large selection. All conditions. Reasonable prices. Modifications, repairs, and service. World-wide Music, 1 (800) 871-2011. 101 Cherry Ave., Delmar, NY 12054.

**MAKE US YOUR LAST CALL!** All major brands, new and used. Roland, Korg, Kawai, Fostex, etc. The Music Store. (800) 821-7817. We ship internationally.

1963 Hammond **B-3**, walnut, with PR-20 P&B, flawless. One owner, mint. \$3,950.00. John: (617) 447-5612.

**Casio Pro Gear** - Expand your MIDI horizons - Super affordable **MIDI Sax** priced under \$100.00. Also VZ-1 synth, VZ-10M modules, FZ samplers & complete sound libraries. All in stock. Call C.E.C. (414) 784-9001.

B-3 Hammonds: All excellent, one owner, six available, \$3,500.00, choice. (701) 223-1933.

## DON'T GET BEAT

When you need equipment call

**8TH STREET MUSIC  
(800) 878-8882**

Philadelphia's Largest Musical  
Instrument Dealer!!!

8th Street Music, 1023 Arch St.  
Philadelphia, PA 19107

**FREE MIDI ADVICE** - Kurzweil, Digidesign, Tascam, Korg, Roland, E-mu Systems, Akai, TOA, JBL, Lexicon, Mackie, DOD/Digitech, AKG, Crown, Panasonic, Ramsa, Fostex, Carver, and more! Macintosh and IBM software and interfaces. We sell all brands of MIDI-based music and recording equipment, plus have knowledgeable, helpful people! We take trade-ins! Sweetwater Sound, Inc., 5335 Bass Rd., Ft. Wayne, IN 46808. (219) 432-8176.

Hammond B-3, 1970. Flawless cherry cabinet w/matching 122 Leslie, original, mint, in Florida, \$7,450.00. Also 1957 B-3 w/PR-40 cabinet, original mahogany, excellent condition, great sound, in New Jersey, \$3,300.00. Tom Haydu, 2507 Bimini Lane, Ft. Lauderdale, FL 33312. (305) 792-0185.

**K - MUSIC. New, Used & Consignments:** Guitars, amps, keyboards, drums, and effects. K - Music, 606 Mohawk St., Utica, NY 13501. 11:00 a.m.-5:30 p.m. (315) 733-2848.

**Chapman Stick.** Buy and sell vintage, used. Traktor: (415) 435-7504.

**USED GEAR WANTED for Secondhand Sounds** mailorder, keyboards, drum machines & modules. Buy, sell, trade. Catalog available. User ID #70701.1132. Secondhand Sounds, 3867 W. Market St. #188, Akron, OH 44333. (216) 665-4755; (216) 666-2903 FAX.

## American Pro Audio



Digital Workstations  
Software • Keyboards  
Recorders • DAT  
Consoles  
Leasing and financing.

**Call For Prices!**

Digidesign • Opcode • Otari • Roland • Korg  
Prodisk • Yamaha • Fostex • Dolby • Soundtracs  
DDA • Ramsa • Trident • Neumann • Tannoy  
Eventide • TC Elect • Summit

**1-800-333-2172**

1,600+ new top-brand P.A. equipment, computer, MIDI, audio-visual presentation, home theater, satellite, stereo, video products - descriptions - prices on-line BBS: (903) 561-6264. Voice: (800) 282-4946.

**HAMMOND B-3**, reverb, w/2 Leslie 122s, cables, bench, pedals, custom dollies - all **MINT!** \$9,500.00 firm. Bob, Woodside Dr., Oxford, PA 19363. (717) 529-2221.

**FOR SALE:** Yamaha DX5, CP-70B, SPX-90-II; E-mu Emax-SE, Emulator II+; Oberheim DX; Roland MSQ-700, JSQ-60, MD-8; AudioArts 32x24 console. Inquiries FAX (413) 598-8282.

**VINTAGE KEYBOARDS.** Buy, sell, and trade. The Starving Musician, 3427 El Camino, Santa Clara, CA 95051. (408) 554-9041. FAX (408) 554-9598.

**ANALOG MODULAR SYSTEMS.** We buy and sell, and have in stock, **Buchla, Moog IIc, Serge, E-mu, ARP 2500/2600;** also Minimoog, JP-8, OB-8, PV, MKS-80, etc. USA: Tel. (213) 850-5216; FAX (213) 850-1059.

## Sound Deals, Inc.

Specialist in Pro Audio, Synths,  
Samplers, Computer Software/Hardware,  
Home Recording and more!

**(800) 822-MIDI / (205) 823-4888.**

Mon / Fri 12 - 6 p.m.  
230 Old Towne Road - Birmingham, AL 35216

**WANTED:** Working **CHAMBERLAIN M1.** Chris: (519) 735-4052.

Hammond X-66. Excellent original condition. \$5,000.00 or best offer. (208) 523-3205.

**Hammond B-3s and C-3s**, completely restored, for sale. **Leslie 147s, 122s, 145s**, completely restored. Fast/slow switching device for Leslie now available and more. Call (504) 343-2369.



## CLASSIFIEDS

**USED Keyboards!** All brands digital, analog. Different keyboards weekly. Buy/sell. **The Keyboard Network**, (818) 761-2532.

**Modular Moog.** 4 tiers, 2 keyboards, ribbon controller. Excellent condition. Module inventory available. Best offer. (904) 574-8800.

**SYNTHESIZERS & Stuff:** Prophet-5 (Rev. 3/MIDI/case), MINT, \$1,500.00. Oberheim 4-Voice, MINT, \$1,500.00. Fairlight Series IIx (library/doc/cases/MIDI/SMPTE), MINT, \$4,000.00. ARP Quadra (case), good condition, \$800.00. E-mu Proteus, good condition, \$400.00. Kurzweil K1200, good condition, \$650.00. Korg A-3 processor, good condition, \$350.00. Ensoniq DP-4 processor, MINT, \$1,000.00. Please FAX Mike: **(212) 582-3926**.

**KORG WAVESTATION A/D** module. Excellent condition. \$1,400.00. (510) 525-7870.

**Hammond XB-2**, \$700.00; **Leslie 122** (Goff Professional) with Calzone road case, 1 year old, \$2,200.00; Pedal preamp, \$175.00; **Soundcraft Folio 12/2** mixer, \$395.00; **MIDI Time Piece II**, \$275.00; **Rane HM42** rackmount Headphone Mixer, \$175.00; Eltek rackmount combination CD-ROM-Syquest 44 for Mac, \$500.00. (316) 232-7243.

### SYNTRONICS MUSIC SERVICE

Synthesizers Keyboards Samplers  
Effects Drum Machines Guitar Amps  
Vintage Synthesizer Service

466 COMMONWEALTH AVE. BOSTON, MA. 02215  
**617-266-5039**

**TONS OF SUPER-CLEAN, USED MUSIC EQUIPMENT.** Yamaha, Roland, Korg, Ensoniq, Kurzweil, Akai, Kawai, E-mu, Tascam, Soundcraft, and hundreds more. **COME IN OR DO IT ALL THROUGH THE MAIL!** 65 years in business. Trades welcome and **WORLDWIDE DELIVERY**. Call, write, or FAX us today for prices and details. **CARUSO MUSIC**, 20 Bank St., New London, CT 06320, USA. (203) 442-9600. FAX: (203) 442-0463. ¡Si, hablamos Español!

**Vintage B-3, C-3, A-100** Hammonds and Leslies available. Reasonable. New England delivery available. John: (617) 447-5612.

**HELP SAVE THE B-3s!** Hammond B-3 organs wanted! Cash paid! Nationwide pick-up/sold worldwide. **Leslies** wanted! Referrals appreciated! Send photos to: Keyboard Exchange International, 8651 Portside Ct., Orlando, FL 32817. (407) 677-7001. FAX (407) 671-2272.

### ANALOG SERGE MODULAR



SOUND TRANSFORM SYSTEMS  
vox 510-465-6896 Oakland CA fax 510-465-4656

**WANTED: TB-303, SH-7, MODULAR MOOG**, Minimoog, Aries, **ARP** sequencer, Odyssey, 2600/2500, MS-20, SQ-10, EML-101, 200, 400, CS-15, CS-40M. (614) 694-5164.

**PPG SYSTEM.** PPG 2.3 plus Anvil and **WAVETERM B**, plus library. \$2,500.00. (415) 979-6807.

**The Retro: MIDI to Control Voltage Converter by CLARITY.** The most flexible unit ever made. Send any control source to any of the 8 analog outputs. From the designers of the MIDI/XLV and the Lexicon MRC. Available factory direct only for \$595.00. **CLARITY**, Nelson Lane, Garrison, NY 10524. (914) 424-4071.

**WURLITZER** electric pianos. Buy/sell. Numerous Complaints Music, 1537-B Howell Mill Rd., Atlanta, GA 30318. (404) 351-4422.

Akai S01 sampler, in box, \$599.00; Yamaha SY55, \$479.00; QY10 sequencer \$149.00; DX7 \$399.00; all E.C. (607) 753-3965.

Classifieds continue ➡

An ad in KEYBOARD's Classifieds reaches more than 67,000\* serious musicians for only \$2.50 per word plus \$7.00 for an address. Minimum charge: \$25.00. Please underline words to appear in bold type and add 50¢ additional per bold word. Please indicate clearly any words to appear in all caps and add 25¢ per all cap word. Acronyms (MIDI, SASE, US, etc.) count as regular words. **Display Classifieds** are \$145.00 per column inch; 4-3/4" maximum; Call/write for more information. **Deadlines** are the 15th of the month, 3 months prior to cover date (for example, January 15th for the April issue, on sale in mid-March). Ads received after the deadline will be held for the next issue unless otherwise specified. **Businesses** must list business name in ad. All ads must be paid in full in advance. All ads must be music-related. Stated or implied discounts on new equipment are not allowed (manufacturers may revise their own prices). Advertisers must provide us with complete name, full address (PO Boxes are not sufficient), and phone number, whether or not included in the ad copy. **Mail ads to:** KEYBOARD Classifieds, Attn: Amy Miller, 411 Borel Ave., #100, San Mateo, CA 94402 or **FAX** (with MC, Visa, or AmEx only): (415) 358-8729. For more information, call Amy Miller at (415) 358-0126, ext. 292. (\*Circulation; does not include pass-along rate.)

Please type or print your ad clearly. Use a separate piece of paper if you need more room.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_ Zip \_\_\_\_\_  
Telephone \_\_\_\_\_

Include phone # in ad? ☐ yes ☐ no  
(counts as one word)

Under which category would you like your ad to appear? ☐ Instruments ☐ Parts/Accessories

☐ Recording ☐ Instruction ☐ Sounds & Software ☐ Records/CDs/Tapes ☐ Employment ☐ Other

(do not include address when counting words)

### TO COMPUTE COST OF AD

# \_\_\_\_\_ words x \$2.50 = \_\_\_\_\_

# \_\_\_\_\_ bold words x \$ .50 = \_\_\_\_\_

# \_\_\_\_\_ ALL CAPS wds x \$ .25 = \_\_\_\_\_

Address \$7.00 = \_\_\_\_\_

Total cost per issue = \_\_\_\_\_  
(minimum \$25.00)

x number of issues to run x \_\_\_\_\_

**Total payment = \_\_\_\_\_**

☐ Payment enclosed, or Charge my  
☐ Visa ☐ MasterCard ☐ American Express

Card # \_\_\_\_\_

Expiration date: \_\_\_\_\_

Signed: \_\_\_\_\_



# CLASSIFIEDS

**Largest Used Musical Instrument Store** on west coast wants your used and vintage keyboards. Black Market Music, 1016 Howard St., San Francisco. (415) 252-1055; FAX offers: (415) 252-1060.

Have you seen **Caruso Music's** display ad listed under retailers in the back of this magazine?

**MINT B-3**, one home owner, light cherry finish, matching 122 Leslie. Ser. #99589. \$6,500.00. (606) 299-5966. Lexington, KY.

**We Want Your Used Keyboards, Recording And Audio Equipment.** We'll airmail you cash or take your stuff in trade toward over **350 brands** of new and used musical equipment. **Come in or do it all through the mail! Worldwide delivery! 65 years in business.** Call, write, or FAX us today for price quotes and details. **Caruso Music**, 20 Bank St., New London, CT 06320 USA. (203) 442-9600. FAX: (203) 442-0463. ¡Si, hablamos Español!

**Limited Edition DX7II Centennial** with EI, rare. Kurzweil K250 RMX, loaded, \$1,795.00. K250 Expander, \$500.00. Ensoniq EPS-M, \$995.00. Trade for MKS-80. All excellent. (203) 677-7618.

**Wray Music:** Supplying the music world with all the biggest brand names since 1955. Free shipping (on most models), advice, and after-the-sale support. Call or write. Wray Music, 370 Market St., Lemoyne, PA 17043. (717) 761-8222.

## PARTS/ACCESSORIES

**2.8" QuickDisks** - \$35.00 per box! (\$4.50 p/h.) RAM cartridges, expanders, interfaces, software. Call for prices/free catalog. MC/VISA/COD. **SoundSations**, 370 Mt. Vernon, Grosse Pointe Farms, MI 48236. (313) 885-1539.

EXTREME • BOSTON • DE LA SOUL • WINGER • THIRD BASS  
**TOURCASE** FREE  
 Catalog  
 800-228-8233  
 Sales & Service  
 508-425-9591  
 Hard Shell Cases VISA/MC  
 AEROSMITH • KENTUCKY HEADHUNTERS • BON JOVI

**D.P.D.T. FOOTSWITCHES.** New, high quality. \$14.00 ppd. Visa/MC, check, M.O. Black Cat Products, 5521 Greenville, Ste. 104-641, Dallas, TX 75206. (800) 929-5889.

**SEQUENTIAL Prophet Specialists**  
 sales • service • software • original parts  
 vintage synth MIDI kits & CVs • since 1987  
 call or write for free catalog  
**Wine Country Productions, Inc.**  
 1572 Park Crest Court #505, San Jose, CA 95118  
 USA (408) 265-2008 • FAX (408) 266-6591

**Attention KORG CX-3 and BX-3 owners:**  
 A replacement circuit board is available for the obsolete **SM304 ICs**. We also buy, sell, and service. For more info, call or write: **Resurrection Electronics**, 3504 King St., Austin, TX 78705. (512) 451-5900; FAX (512) 323-5152.

**SINGERS! REMOVE VOCALS!**  
**Unlimited Backgrounds™**  
 From Standard Records & CD's with the Thompson Vocal Eliminator™ Call for Free Catalog & Demo Record.  
 Phone: (404) 482-4189 Ext. 21  
 Singer's Supply, Dept. KB-1  
 7982 Hightower Trail  
 Lithonia, GA 30058  
 24 Hour Demo/Info Request Line (404) 482-2405 Ext. 21  
 Singer's Supply • We Have Anything & Everything For Singers

**Racks, Rack Drawers, Home Studio Accessories.**  
 Call for more info. **EFXX Products:** (800) 468-3399.

**ELECTRONIC KEYBOARD ACCESSORY SPECIALISTS**

WE SUPPORT ALL MAJOR BRANDS

DIGITAL RECORDING & EDITING  
 CD-ROM • MULTIMEDIA • ADAT  
 SOUND MODULES • KEYBOARDS  
 MIDI INTERFACES • SYNC BOXES  
 SCSI DRIVES • MEMORY • DAT  
 RAM/ROM CARDS • COMPUTERS  
 SOFTWARE • SOUNDS • SAMPLES

HARD DRIVE SALES & REPAIR

VISA INFO or FREE CATALOG  
**619-789-6558**  
 ORDERS 800-753-6558  
 FAX 619-789-4170  
 1125 ELEVENTH STREET  
 RAMONA, CA 92065

**SOUND LOGIC™**

INTERNATIONAL SPECIALS

8	IBM MPU-401 MIDI I/F	69
A	ASR10 & K2000 RAM	Call
M	AKAI S950 & MPC60	174
6	TX16W 1.5MB RAM	227
P	TX81Z 5X RAM Expander	119
M	Yamaha MCD-64 RAM Card	87
	EPS-4X & SCSI I/F	247 & 127
	EMAXII Sample CD-ROM	97
	SyQuest 44MB Rem. Drive	447
	SyQuest 88MB Rem. Drive	527
	SyQuest 105MB Rem. Drive	547
	44R/CD-ROM Combo Drive	847

**FREE SHIPPING** in U.S.A.

**OMNIRAX**  
 STUDIO FURNITURE for the discriminating musician

800-332-3393  
 P.O. BOX 1792 SAUSALITO, CA 94966

**ROLAND SYNTH OWNERS**

INTRODUCING "KUSTOM KEYTOPS"

- STICK ON MOLDED PLASTIC KEYTOPS (WHITE)
- DURABLE & SCRATCH RESISTANT
- IMPROVE YOUR KEYBOARDS ACTION, TOUCH & FEEL
- IMPROVE YOUR PLAYING TECHNIQUE

NOW YOU CAN HAVE LONGER PIANO LENGTH KEYS  
 SMOOTH SOLO'S AND ARPEGGIOS - PLAY FAT CHORDS WITH LESS FATIGUE & CRAMPING. 30 DAY GUARANTEE

61 NOTE SYNTHS	76 NOTE SYNTHS
JV-80/JV-30/JD-800	JV-1000/D-70
JW-50/U-20/EM-305	MODEL 760
\$59.95 U.S.	\$79.95 U.S.

\$4.00 S&H \$8.00 OUTSIDE CONT. U.S. SEND CHECK OR M.O. TO:  
**KEYBOARD ERGONOMICS, P.O. BOX 3801, CENTERLINE, MI 48015**  
**FOR MORE INFO CALL 810-398-4652**

## MIDI Solutions Inc.

### Modular MIDI-processing Products.

CALL 1-800-561-6434 for a free brochure

## MIDI Solutions Inc.

Innovative Solutions for Today's Musician.

**DusKuvir™**  
**DUST COVERS**  
 Protect Your Valuable Keyboards, Consoles and Audio Equipment • Premium quality vinyl • Black, clear or gray • Custom-fit sizes • Satisfaction GUARANTEED!

Order Today! **j.pro** P.O. Box 41 • Minneapolis, MN 55316  
 (800) 472-7707 (612) 427-7707 • Fax: 427-8865

## RECORDING SERVICES/SUPPLIES

Put your DEMO on  
**CD for \$45**  
 When you buy two copies \$50 for one disc

**Big Dreams Studio, Ltd.**  
 708 945 6160

**MASTERS OF BLANK TAPE Mail Order!** BEST BRANDS - BEST PRICES - Free catalog! Sonocraft, 520 Main St., Boonton, NJ 07005.

**YOUR DAT DEMO ON CD!! ABSOLUTE BEST PRICES - GUARANTEED!!** Tyler: (801) 966-7771.

**DATS and CASSETTES**

BASF Chrome - Clear Shells - C10's .46 cents  
 Norelco Boxes - Color Labels - "J" Cards - Mailers  
**DAT TAPES - D15 from \$4.00 CD-Blanks \$28.00**  
 Moneyback Guarantee - MasterCard/Visa  
**800-321-5738 CASSETTE HOUSE**

## INSTRUCTION

**Songwriters!** Learn how to copyright your work. Protect yourself. Send \$5.00 to: QuickInfo, PO Box 78741, Atlanta, GA 30357.

Short cuts to playing blues, jazz, rock, gospel, new age, R&B, Latin. Book/cassette with optional MIDI file disks show you how. All levels. Free info. (800) 748-5934. A.D.G. Productions, 15517 Cordary, Lawndale, CA 90260.



## CLASSIFIEDS

## SOUNDS &amp; SOFTWARE

## BOOKS, VIDEOS, TAPES

Synthesis & Sampling • Recording • MIDI  
Composition • Instrument-Specific  
and more! Over 550 titles.

FREE CATALOG (800) 233-9604

6400 Hollis St. #12, Emeryville, CA 94608

## MIX BOOKSHELF

## PERSONAL PIANO INSTRUCTION BY VIDEO.

More effective, less expensive. Beginners to professionals. Viewed in **KEYBOARD MAGAZINE** World View. Brochure and reviews. **PERSONALIZED VIDEO PIANO METHOD**, PO Box 489, Madison, NH 03849. (603) 447-3535.

**Black Gospel Music In Print.** Written for the pianist who cannot pick up black gospel by ear. Notated exactly the way it is played. "Praise Him With The Gospel" by Charles F. Little, Jr. Book #1, \$14.95, cassette \$10.95. Book #2, \$12.95, cassette \$10.95. C.F.L. Music Publishing Co., Inc., Box 2028-KB, Lexington, KY 40594.

**BE A RECORDING ENGINEER**

★ **TRAIN AT HOME** with ATA

Easy Home-Study practical training in Multi-track Recording. Join our successful working graduates or build your own studio. Diploma, Job Placement, & More.

**FREE INFORMATION:**  
Audio Institute of America  
2258-A Union St., Suite B, San Francisco, CA 94123

For A Sound Education

Tabla rhythm tapes, \$10.00 each. Ragopedia - India music scales manual, \$25.00. Visa/MC. Batish's, 1310 Mission St., Santa Cruz, CA 95060 USA. (408) 423-1699.

## The Contemporary Keyboardist Course by John Novello

*The laser-precise method that has produced top professional keyboardists, platinum song writers, arrangers and composers.*

"The most up-to-date, diverse and complete method on keyboard playing I've ever seen."

—Chick Corea

"...and even in my 30 years' experience in the business, every time I open *The Contemporary Keyboardist* I learn something, too."

—Herbie Hancock

For books, videos, private or correspondence lessons, call or write:

The Contemporary Keyboardist  
11726 La Maida St., North Hollywood, CA 91607

(818) 506-0236 FAX (818) 506-5559

**BUILD KILLER CHOPS!** Method for getting up to speed. \$10.00 to: jC Publishing, PO Box 581, Dept. PPK, Acworth, GA 30144.

**Personal Correspondence Lessons With Berklee Professor Dave Frank.** Develop your potential!! PO Box 44-1341, West Somerville, MA 02144. (617) 628-7364.

**Teach Yourself** how to play keyboards with **FAST FINGERS® MIDI KEYBOARD LESSONS** for IBM-PC. From \$49.95. VISA/MC/AMEX. Call (800) 327-0209 or write: FAST FINGERS® MUSIC SOFTWARE, Dept. K-5, PO Box 741, Rockville Centre, NY 11571.

**Learn Keyboard By Video** with Talc Tolchin. Vol 1: Scales, improvisation, chords, rhythm. Vol 2: Ear training. Vol. 3: Blues. Vol. 4: Exercises. Vol. 5: Songwriting. Vol. 6: Demo production. \$50.00 each; 3 or more, \$40.00 each. Postage \$3.00. Billboard: "Highly recommended." Video Review: ★★★★★. Keyboard: "Could help absolute beginners start sounding good fast." Forte Productions, Box 325K, San Geronimo, CA 94963. (415) 488-9446.

### Memorize Music Like Experts!

**MUSIC SUPER MEMORY**  
Revolutionary, new music memorization technique!  
\$22 plus \$5 S&H

### You Too Can Have Perfect Pitch!

**The PERFECT PITCH DEVELOPER TAPES**  
Learn the SECRET of Perfect Pitch!  
\$20 plus \$3.50 S&H Free Catalog, 617-320-9542  
Evergreen Music, P.O. Box 862-KB Islington, MA 02090

**Learn Piano Tuning, Repairing, And Regulating,** taught by Craftsman technicians. Complete correspondence course includes written and video tape training material, Apprentice Training Manual, much more. Licensed by Department of Education. Approved for Veterans Training. **Randy Potter School of Piano Technology**, 61592 Orion Dr., Bend, OR 97702. (503) 382-5411.

**DIAL-A-PIANO LESSON!** Free 3-minute recorded lesson on chord techniques. Call anytime. (503) 664-6751.

**Jazz Studies For Piano.** Learn from ten solos some of the figures you need for improvisation. Write to **Claremont Publishing**, PO Box 70, Hazleton, PA 18201. FAX (717) 455-6371.

**Accredited Two-Year Program** offering Diploma in music, dance, record production. Catalog, auditions, information: (203) 246-2588. Hartford Conservatory, 834 Asylum Ave., Hartford, CT 06105.

**SECRET REVEALED.** Play keyboard in 5 minutes a day. Free report. (800) 925-8273.

**MASTER MUSIC AT HOME!** Diplomas/degrees. **U.S. COLLEGE OF MUSIC.** (617) 266-2886 (v); (617) 536-9494 (f).

**GUARANTEED KEYBOARD SIGHT-READING** secrets. Free literature. (213) 964-1871 (24 hours). SF Publishing, 7616 Lindley #25-E4, Reseda, CA 91335.

Introducing **VAMPS** - a new funk/fusion play-along CD & book set. Featuring: 55 minutes of digitally-recorded live rhythm section accompaniment for improvisation - 12 typical tunes of varied interest - for all instruments. \$15.00 per set, \$3.00 postage. **POCKET CHANGES**, PO Box 86, Jeffersonville, IN 47131.

Try Your Own Ad in Keyboard's Classifieds!

## DANCE SAMPLES

Since 1989  
We have some of the best sounds at the lowest prices around. Call for your catalog of disks and CDs.

Samples on 3.5" disk for: EPS, EPS 16, ASR-10, TS-10, S-50, 550, 330, 770, W-30  
S-900, S-950, S-1000, K-2000v2  
CALL FOR YOUR FREE CATALOG!  
**310 699-0095**

**MIDI MARK**  
P.O. BOX 217  
WHITTIER, CA 90608

## KURZWEIL K2000 SAMPLES

and programs created by Marty Friend (the sample wizard who gave the world many of the unbelievable sounds found in the original KURZWEIL 250 and the new K2000 sound libraries!)

Tired of purchasing samples that are less than claimed when you get them home? Try our "Hearing is believing" cassette demo tape before you buy (\$3.00 refundable with your first order)!

- Available on floppies or 45 meg. Cartridges.
- Spec. sheet included for every program.
- Ask about the 16 meg. "Ultimate Piano"!
- MasterCard & VISA accepted.

**R.S.I.**.....  
300 Oakwood Ave., Elkhart, IN 46514, (219) 262-1324

**800+ tunes for Band-In-A-Box.** Now available, disks 1 & 2. **400** songs per disk (IBM, Mac, Atari). Professionally input with **correct** chords & melodies (average file, 5K). For BB Ver. 5+. \$39.95 each + \$3.00 S&H or info: Giant Steps Inc., 1733 H St., Suite 330-382, Blaine, WA 98230.

## Give Your Act A Good Kick In The Gas..!

Now In Our 3rd Year

Over 4,500 sequences with that "off-the-record" sound

Pop - Classic Rock - Jazz - Country  
Standards - Big Bands - Gospel



FREE  
CATALOG

485 Cianelli St, Tracy, CA 95376

(800) 593-1228

Int'l (209) 832-0225 Fax (209) 832-0460

In Australia

Advanced Midi Music Technology

92a John St, Cabramatta 2166 N.S.W. (02) 727-4548

Classifieds continue ➡



# CLASSIFIEDS

## SEQUENCES

Finest Sequences & Documentation Available.  
Most Computer & Dedicated Sequencer Formats  
DAT & Cassette Format

This Week's Top 10 Country Hits  
All for only **\$49.95**

Orders: 1-800-844-4785  
Technical Support: 1-803-293-4598  
Ask About Our Membership Plan



TrackBusters, Inc.  
600 Whispering Hills  
Suite O-7  
Nashville, TN 37211

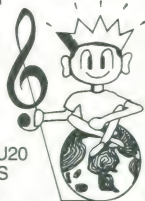
**ITALY-in-MIDI:** Desideri nuove sequenze italiane per i tuoi party? ITALY-in-MIDI, via DEZZA, 24, 20144 MILANO (ITALY).

**KURZWEIL K2000 EDITOR LIBRARIAN** for MS Windows \$110.00. MS-DOS Editor Librarian with patches for 1000, 1200 series, \$95.00. At Work Software, Box 672, Tijeras, NM 87059. (505) 281-2194.

## KID NEPRO

**KID NEPRO IS THE PATCH KING!**  
Since '84, more quality sounds, for more instruments than anyone in the entire universe!

**KORG**  
01W SERIES 03WR  
ALL WAVESTATIONS  
T-SERIES M1  
M1R M1REX  
M3R DS8 707  
EX-DW 8000  
EX-POLY800  
POLY 800-2  
**ROLAND**  
JV80 JV880  
JD800 JD990 U20  
ALL D SERIES  
U220 MKS70  
MKS80 MKS50 JX8P  
JX3P JX10 JUNO-1  
JUNO-2 JUNO-106  
HS60 JUNO-60  
JUPITER-6 JUPITER-8  
**YAMAHA**  
ALL SY, TG, DX AND  
TX SERIES PLJJS  
V50 AND FBO1



**CASIO**  
ALL CZ & VZ SERIES  
FZ1 FZ10M FZ20M  
**OBERHEIM**  
MATRIX-6 6R  
1000-XPANDER  
OB8 OBXA DPX1  
**SEQUENTIAL**  
PROPHET-5-10  
VS-2000-2002  
**KAWAI**  
K1 K1R K1M  
K4 K4R  
**ENSONIQ**  
MIRAGE EPS EPS16+  
ASR10 ESQ1 SD1  
**EMU**  
EMAX EMAX-2  
ENTIRE PROTEUS  
SERIES SP1200  
**AKAI**  
S900 S950 S1000 S1100  
S2800 S3000 S3200 S01

CHECK OUT OUR **KURZWEIL K2000** SOUNDS...

### AVAILABLE FORMATS:

ROMS • RAMS • CASSETTES • DATA SHEETS • ALESIS  
DATA-DISK • MAC • ATARI • IBM. AUTHORIZED DEALER  
FOR MOST COMPANIES. WE SELL HARDWARE TOO.  
SEND \$2 FOR CATALOG (SPECIFY INSTRUMENTS)  
\*\*\* AND THE LATEST SOUND LISTINGS \*\*\*

KID NEPRO PRODUCTIONS • PO BOX 360101  
(DEPT K) BROOKLYN, NY 11236 • 718-642-7802  
• 212-629-3708 • FAX: 212-947-0027 •

\*\*\* AMEX • DISCOVER • VISA • MC \*\*\*  
**The PATCH KING has it all!**

**LIVEWIRE:** Humongous patch libraries for Yamaha **DX7/TX7**, Korg **M1/T1**, **M3R**: \$49.95! 400 Korg **DS-8** patches: \$39.95 (ROMcard \$79.95). Order on Atari ST, IBM, Macintosh disks. **T1, SY99/ SY85** sample disks - send SASE for information. Livewire Audio, PO Box 561-K5, Charming Oceanport, NJ 07757. (908) 222-1227.

**Emax, Emax II** users try our copyrighted advanced synthesis designed samples. Super memory efficient. Each EmaxII disk set contains on average 70-90 different wide-ranging presets per megabyte. Over 70 titles includes: Acid, Rap, Techno, New Age, Orch., & more. Free demo. Great prices & sounds!  
O (412) 279-8197 Stoklosa Prod.  
PO Box 13086 Pgh., PA. 15243

**COUNTRY SEQUENCES.** Need a lot or just a few? Contact us; that's all we do. **C.J. MIDI PRODUCTIONS**, 24 Hinkleyville Rd., Spencerport, NY 14559. (716) 352-5493.

**THE BEST SEQUENCES AVAILABLE.** Tran Tracks has been providing professionals with the highest quality sequences for years! Our clients continue to say **Tran Tracks** are the best. Incredibly accurate programming. Large library of hit songs. Unparalleled technical support. Complete documentation. Immediate delivery. Formats: IBM, Macintosh, Atari, Amiga, Roland, Yamaha, Kawai, Alesis, Ensoniq, Brother, Korg. Licensed by major publishers. 5 songs or more - \$10.00 each. MC/Visa/Amex. Free demo and catalog. **TRAN TRACKS**, 350 Fifth Ave. #3304, New York, NY 10118. (201) 383-6691. FAX: (201) 383-0797. Toll-free order line: (800) 473-0797.

### Intense support for a few synthesizers!

• **T1/T2/T3:** 20 disks of new sounds. (Reviewed, KEYBOARD, Oct., '92 & Sept., '93, pg. 120): "... an excellent, inspiring collection." "\*\*\*\*\*" (Perfect Rating)

• **DW-8000:** Over 640 sounds available. Turbo-DW plug-in expansion on sale: \$149.95. (Split, layer, transpose, local-off, 512 patches, etc.) (Reviewed, KEYBOARD, Sept., '90, pg. 146.)

• **TX81Z:** "These sounds are great." - Mark Grey, KEYBOARD, June '93 "\*\*\*\*\*" (Perfect Rating)

VISA — **Angel City** — MasterCard  
2 Liberty Place, Middletown, CT 06457 (203) 347-5166

**ENSONIQ SOUNDS!** The best patches and samples for every Ensoniq keyboard. Killer sounds for VFX/SD-1 and SQ-1/KS-32. Also available: Ensoniq's Mirage, ESQ-1, and SQ-80 libraries. Slamming Casio VZ-1/VZ-10m patches! Syntaur Productions: (800) 334-1288.

**\$10.00 For Quality INFINITY Looped Samples?** DPM3/4, Elll, SPI! Sound Engineering, Attn: K5, PO Box 1014, Lebanon, NH 03766. (802) 296-3845.

**Sequences! Sequences! Sequences!** Available for all types of music. Free catalog. Specify sequencing software and hardware. **The MIDI Inn**, Box 2362, KSQ5, Westmont, IL 60559. (708) 789-2001. Demo line: (708) 789-2181.

**DRUM SAMPLE CD** - Over 1,200 powerful, digitally recorded drum sounds! Just \$69.00! **RHYTHM PATTERN PACKAGE!** 2,000+ exciting rhythm patterns and fills! Rock, hip-hop, rap, pop, Latin, jazz, country, and more! MAC, Atari, IBM, MC-500/50, MMT-8, QX-3, Q80, HR/SR-16, 01W/FD, SY77/85/99, M1, T1/2/3, VFX-SD. Only \$69.95! MC/VISA/COD. **SoundSations**, 370 Mt. Vernon, Grosse Pointe Farms, MI 48236. (313) 885-1539.

**The Definitive Synthesizer Sound Library!** Guaranteed! (213) 650-6602. ManyMIDI Products, PO Box 2519, Beverly Hills, CA 90213.

## TRYCHO TUNES PERFORMANCE SEQUENCES™

Over 1300 current Top 40, oldies, standard, and c&w songs for most brands of sequencing equipment.

We're the oldest and still the best!

Trycho Tunes are available at many fine pro audio/computer stores, or order direct at:

1 (800) 543-8988

**TRYCHO MUSIC INTERNATIONAL**  
2166 W. Broadway St., Suite 330  
Anaheim, CA 92804  
Fax: (909) 696-3571

**WAVESTATION** - complete banks - "Synclarity," "Obocussion," "Fire Bells." Alesis, IBM, Atari, and Mac now available. \$20.00 each, shipping included. MasterCard or Visa accepted. Call to "try before you buy." Notes By Smarcus, Box 3778, The Pas, Manitoba, R9A 1S4, Canada. (204) 623-2750.

## INCREDIBLE VALUES

Over 5 gigabytes of MIDI programs  
almost FREE via MODEM ONLY!  
708-949-MIDI 24 hours - 7 days  
SY-77 over 5700 sounds on 18 disk  
collection SALE ONLY \$85!! mail  
order only Visa/Mastercard/M.O.  
EPS/ASR10 sample disks from \$3  
write for FREE listing of samples!  
Sound Management BBS  
P.O. BOX 396, MUNDELEIN, IL 60060

Sound disks for the **PEAVEY SP**. Write for complete listing. **SP O.D.E.**, 1522 E. Thousand Oaks Blvd., Thousand Oaks, CA 91362.

**PROTRACKS MIDI Song Files** for IBM, Mac, and GS/GM synths & modules. Large catalog of CHART HITS, ROCK & POP MEDLEYS, and BIG BAND TRANSCRIPTIONS featuring real-time MIDI guitar & EWI programming. Call for FREE catalog and demo. (800) 275-7404.

## IBM Macintosh AtariST Amiga C64/C128

**S** Music/MIDI Software From \$3.00 Per Disk!  
**O** Includes Sequencers, Editors, Librarians, Ear  
**P** Training, Algorithmic Composition, Sounds,  
**T** Sequences, Tutorials, And Much, Much More.  
**W** Hundreds Of Public Domain and Shareware  
**A** Music Disks. Programs Available For Use  
**R** With Any MIDI Instrument. Please Call Or  
**E** Write Today For Your Free Catalog Disk!  
Please Specify Computer Type.

**Music Software Exchange**  
Post Office Box 533334  
Orlando, FL 32853-3334  
Telephone (407) 856-1244





## LB Music Sequences

### • WORKSTATION SEQUENCES •

We Support Ensoniq • Roland

Korg • Yamaha • SMF • GS/GM Formats

With our Quick Play System, just learn the lyrics!  
Call for demo disk & list.

MUSIC & LYRICS NOW AVAILABLE!!!

### L.B. Music

51 Charter Oak Dr.,  
Newtown Square,  
PA 19073

Visa/MC accepted.

FAX: (215) 356-6737

Tech. support: (215) 356-7255

Orders only, please: (800) 3-LB-MUSIC

**REAL LATIN SEQUENCES** available for most popular computers and sequencers. All GMIDI. Write or call for information. **LATINO SEQUENCES**, 5011 SW 139 Pl., Miami, FL 33175. Ph/FAX: (305) 559-9102. Orders: (800) 322-2508.

**SY77/99:** 256 SUPERIOR patches, \$49.95. REVIEWED August '93, page 121. Check/MO: T. Beck, 113 Park Ave., Collingswood, NJ 08108.

**HANDEL "CONCERTI GROSSI OPUS 6"** No's 1-6. Authentically sequenced Type-1 MIDI files in full score for PC sequencers. 29 files - 70+ minutes of music with informative booklet. \$24.95 + \$3.50 shipping. Check or money order. **EDGE OF NIGHT MUSIC**, 4402-B Eilers Ave., Austin, TX 78751-3928.

## LETTERS

Continued from page 152

been a source of constant frustration since about the third month I owned it. It has been tuned no less than eight times in one year. It has pathetic inconsistency of tone. A buzzing in the middle octaves has driven me to not even touch the instrument for days. I believe that the problems stem from a lack of manufacturing quality control of the hammers. They appear to be inconsistent in shape, size, height, and, most importantly, hardness.

I say this because I believe that Steinway, having gone through some very tough times, realized that any shortcuts in the manufacturing process, or even minor design changes, could seriously affect the tone in any piano. It is these subtle differences that make each piano like a fingerprint, unique in sound and balance.

I am convinced that any acoustic grand piano under \$20,000 will have many abnormalities in terms of tone, touch, and tuning. This is because quality control can only be measured in terms of time, manufacturing consistency, and material quality, all of which translates into dollars. There are no free rides. You only get quality when you pay for it. I would therefore recommend a new digital keyboard, with weighted action, to anyone who wants to purchase a piano but cannot afford a "quality" instrument.

James A. Tavegia

Meriden, CT

**K2000 LIBRARIAN** and object editor for Windows 3.1 for \$45.00. Spend your time crafting sound, not pushing buttons. Call or write: Cantabile Software, 2075 31st Ave., San Francisco, CA 94116. (415) 665-0656.

Sounds: **TX81Z**, **EPS/ASR**, **Chroma Polaris**, **K3**, **Matrix-6**, more. Free info. West Broadway Productions, PO Box 12218, Beaumont, TX 77726. (409) 899-5985.

**SALSA, MERENGUE, BOLERO**, GM sequences. GS, SMF, MC-50, others. Free catalog. Demo tape/disk \$15.00. **MidiCOM**, 34st. R7-11 Turabo Grdn., Caguas, PR 00725. (809) 746-4852.

**IMPROVISED JAZZ** in IBM General MIDI file format. Sampler disk \$24.95. **Musicraft Studio**, PO Box 1272, Laurel, MD 20725. (301) 604-6297 - Visa/MC, 24 hours.

## EMPLOYMENT OPPORTUNITIES

**WE WILL PAY** cash plus royalties for your unsold/unclaimed MIDI tracks. Don't sit on your material! All styles needed. Send demo cassette to Music, c/o Gungor Productions, 303 E. 4th St., Marshfield, WI 54449.

**Musicians National Referral.** Professional bands and musicians seeking each other. (800) 366-4447.

### Tales of Moog

As the final assembler at the original plant in Buffalo for all or most Minimoogs with serial numbers in the neighborhood of 3,500 to 5,000, I can tell you some very interesting tales, such as the time Dan Little and I filled Keith Emerson's modular rack with tinfoil from a 7-Eleven after he complained about his Minimoog's inability to stay in tune. Or how about the gorgeous, finished, original-wood Mini bodies that sat unused in a non-air conditioned shed while the company opted to ship with those horrible pressed-wood bodies that dented so easily? Or the time I threatened to quit because Pratt & Whitney's cost-cutters decided to eliminate that little dab of glue inside the rubber sleeves that fit over the upside-down L-shaped metal piece that each key contacted? (Without the glue, the sleeves would have fallen off, and I would have had to remove the keyboard, along with those hairy little blue or purple springs, and replace the sleeve with . . . a dab of glue. I won, by the way; the glue stayed.)

Then there was the top-secret, all-electric grand piano that worked and sounded incredibly real — and that you never knew existed! We kept it hidden under lock and key in a back room because it cost too much to engineer, according to the cost-cutter at CBS, the new boss. (Remember, this was 1972.) They had the product, and they gave it up. The result? Profits = 0. Art = 0. Nice goin', dudes.

**EARN ALL THE MONEY YOU WANT IN ALL AREAS OF THE MUSIC BUSINESS.** Even if you are not a musician, guaranteed. Send \$10.00 (refundable) check/money order within 30 days for detailed information on this fantastic but limited opportunity. Mail check/money order to: The Music Consultant, 2825 Grand Concourse, Suite 3A, Bronx, NY 10468.

**FREE AUDIO TAPE REVEALS HOW TO EARN \$750.00 A DAY TEACHING** a 3-hour "pop piano workshop." Unbelievable but true; no need to advertise — our system "delivers" students! Since 1982. Over 500 workshops conducted each year. Finally: Get a paid professional income. For recorded message and your free tape, call (800) 289-1255.

## OTHER

**Music Opportunity/Record Contract.** We will present your demo tape to major record executives. Service free if not accepted. 25 years experience in industry. For details, SASE to: Milestone Media, Dept. K, Box 869, Venice, CA 90291.

**Songwriter Products, Ideas, Necessities!** Contracts, copyrights, books, critiques, bios, photos, short cassettes, printed labels, MIDI/track sheets, duplication! Free catalog! NSP Songwriter Products, 345 Sprucewood Rd., #K, Lake Mary, FL 32746-5917. VISA/MC/CHECK. (407) 321-3702.

I wasn't one of the resident geniuses at Moog. But I remember those few months as if they were yesterday, even though the original factory is now just an empty field. And I would love to talk with some of the true pioneers who worked there once again.

Paul Santa Maria

Box 2822

Miami, FL 33165

### Bulletin Board

I still use a Computone Lyricon Wind Driver to play my Minimoog and a Korg Mono/Poly through various effects. Because the pitch-bend function on the driver doesn't function anymore, I am in serious need of Lyricon schematics. I'm hoping that your readers can help me out. Maybe this would also be a good time to set up a fellowship for the few Lyricon players who are still out there. Thanks.

Alain Lauzon

Box 978

Alexandria, ON

Canada K0C 1A0

### Corrections

[Two items this month. First, the cost of upgrading a Korg 01/W to ROM version 62 is \$125, not \$50 as stated in our Mar. '94 01/W clinic. And the Kurzweil Keyboard Education Program, noted in our Feb. '94 World View section, was in fact discontinued last year. Our apologies for the misinformation.]



## KEYBOARDS/SAMPLERS/ SYNTHESIZERS

Akai .....	48
Alesis .....	79
E-Mu .....	18,114
Ensoniq .....	37,39,41
Fatar .....	122
Generalmusic .....	105
Korg .....	Inside Front Cover,3
Kurzweil .....	103
Oberheim .....	87
Peavey .....	63
Roland .....	24
Studio Electronics .....	123

## ACCESSORIES/CONTROLLERS

Invision .....	60,102
MIDIMAN .....	52

## COMPUTER HARDWARE/SOFTWARE

Digidesign .....	21
Emagic .....	88/89
Howling Dog Systems .....	78
Key Electronics .....	62
Mark of the Unicorn .....	71, Inside Back Cover
MediaTech Innovations .....	125
MIDIMAN .....	52
Music Quest .....	20,104
Music Writer .....	27
Opcode .....	16/17
OSC .....	104
Pan Network .....	110
PG Music .....	77,116/117
Soundtrek .....	34
Steinberg/Jones .....	98
Temporal Acuity .....	108
Tran Tracks .....	124
Turtle Beach .....	127
Twelve Tone Systems .....	28/29

## SOUNDS

Big Fish Audio .....	64
East-West Communications .....	22/23
Eye & I .....	125



Ilio Entertainments .....	61
Invision .....	60,102
Pro-Rec .....	68
Q Up Arts .....	54
Sound Source .....	42/43
Soundsations .....	59
WD Coakley .....	107

## RECORDING EQUIPMENT/MIXERS

Digidesign .....	21
Disc Makers .....	110
Soudcraft .....	130
Mackie .....	56
Soundtracs .....	7
Yamaha .....	Back Cover

## SOUND REINFORCEMENT/MICROPHONES

AKG .....	73
Alesis .....	8/9
Electro-Voice .....	50

## RETAILERS

Ace Music .....	86
Caruso Music .....	134
Century Music .....	102
Computers & Music .....	76
Goodman Music .....	136
Leigh's Computers .....	126
Musician's Friend .....	111
Nadine's Music .....	100
New York Music .....	148
Rhythm City .....	124
Rich Music .....	131
Rock-N-Roll Music .....	150

Sam Ash .....	139
Soundware .....	107
Sweetwater Sound .....	51,78
Thoroughbred Music .....	109
West LA Music .....	149
Woodwind & Brasswind .....	144

## EFFECTS DEVICES/SIGNAL PROCESSORS

Alesis .....	119
BBE Sounds .....	108
Behringer .....	106
Digitech .....	5
Lexicon .....	58
LT Sound .....	149
Rane .....	53
Sony .....	74

## SCHOOLS

CCRMA Summer Workshop .....	131
Musicians Institute .....	20
Musictech of Minneapolis .....	100
Oberlin .....	150

## RECORDINGS

Blue Note .....	133
-----------------	-----

## PUBLICATIONS/RECORDS/CASSETTES

EVS .....	139
Homespun .....	40
Music Writer .....	27
Musician's Friend .....	111
RSM Direct .....	101

## OTHER

Discount Distributors .....	124
Gavin Report .....	132
Keyboard Back Issues .....	153
Keyboard /Guitar PlayerSpec. Editions .....	38,80
Miller Freeman Books 125,135,137,145,151	
Music Expo '94 .....	Insert
Now Hear This CD Sampler .....	143
SSI .....	138
Yamaha Clavinova/Keyboard Giveaway .....	81

**ADVERTISING:** Vicki Hartung/Valerie Pippin/Dan Fernandez, The GPI Group, 411 Borel Ave., Suite 100, San Mateo, CA 94402 Tel.: 415 358-9500 Fax 415 358-9527  
**EUROPEAN ADVERTISING:** Ed Sengstack, The GPI Group, 411 Borel Ave., Suite 100, San Mateo, CA 94402 Tel.: 415 358-9500 Fax 415 358-9527

**KEYBOARD** (ISSN 0730-0158) is published monthly by Miller Freeman, Inc., 600 Harrison St., San Francisco, CA 94107. Telephone (415) 905-2200; FAX (415) 905-2233; TELEX #278273. Please direct all advertising and editorial inquiries to: **KEYBOARD**, 411 Borel Ave., Suite 100, San Mateo, CA 94402 Tel.: 415-358-9500 Fax: 415-358-9527; ITT TELEX #4994425. Second class postage paid at San Francisco, CA and additional mailing offices. **SUBSCRIPTION RATES:** U.S., \$29.95 for 12 issues. All orders from outside the U.S. must be accompanied by payment in U.S. funds with additional postage of \$15.00 per year for Canadian/Mexican/International surface mail\*, or \$40.00 per year for international air mail. All subscription orders, inquiries, and address changes should be sent to Box 58528, Boulder, CO 80322-8528. For quickest service, 24 hours a day, 7 days a week, telephone toll-free 1-800-289-9919 (in Colorado, (303) 447-9330). CompuServe customer service mailbox: 71572,341. Please allow 6-8 weeks for address change to take effect. \*Canadian GST included-Permit #124513540. **POSTMASTER:** Send address changes to **KEYBOARD**, Box 58528, Boulder, CO 80322-8528. **KEYBOARD** is a registered trademark of GPI Publications, Inc., a subsidiary of Miller Freeman, Inc.. All material published in **KEYBOARD** is copyrighted © 1993 by Miller Freeman, Inc. All rights reserved. Reproduction of material appearing in **KEYBOARD** is forbidden without written permission. Publisher assumes no responsibility for return of unsolicited manuscripts, photos, or artwork. 16mm microfilm, 35mm microfilm, 105mm microfiche, and article and issue photocopies are available from University Microfilms International, 300 N. Zeeb Rd., Ann Arbor, MI 48106, telephone (313) 761-4700.





It happens every time we demonstrate FreeMIDI's auto-config feature in a new studio. We click a button, and a few moments later FreeMIDI has identified the MIDI devices connected to their Macintosh. Eyebrows raise. Then we start moving device icons around so that the on-screen display matches the studio's actual layout. Now people are grinning. Someone says, "I always wished that my Mac could do stuff like this." Now it can.

We show how FreeMIDI supports Bank Select, giving them instant access to hundreds of patches from within Performer, Mosaic or any FreeMIDI-

compatible software. Next, we use FreeMIDI to synchronize multiple programs together using FreeMIDI's integrated transport control and auto locate points. Before you know it, they're editing patches in Unisyn and controlling Performer's transport at the same time. Then we mention that with FreeMIDI, you're free to run OMS™ applications with or without MIDI Manager or OMS™.

But that's just the beginning. You'll find more when FreeMIDI arrives free, with your Performer Version 5, Mosaic or Unisyn upgrade. Or call us for more information at 617 576 2760.





# Digital Recording for Computers in the Real World.

**Now  
Shipping!**



If you're thinking about hard disk recording, you've probably heard that you'll need to buy a bigger, faster computer, with more slots and accelerators, that will end up costing you a whole bunch of money.

Until today!

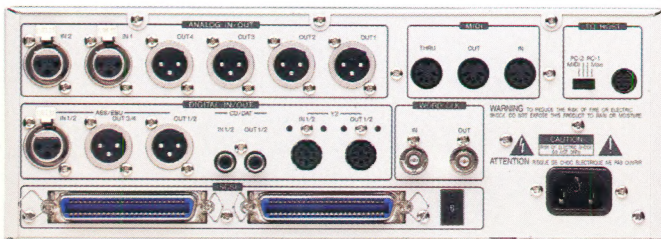
The new Yamaha CBX-D5 Digital Recording Processor, developed in cooperation with premier hardware and software designers throughout the world, can be immediately interfaced with the most popular and affordable computers being used today. This impressive list includes Atari (ST, TT, and the new Falcon), Apple Macintosh (SE30, all II models, Quadras, and PowerBooks), IBM PS2, and even clones running Microsoft Windows 3.1.

The CBX-D5 system was designed to let your computer compute and your storage devices store while the CBX-D5 handles the processor-intensive work. The CBX-D5 controls digital multi-track recording, analog-to-digital and digital-to-analog conversions, digital audio routing, digital signal processing and digital equalization, digital inputs and outputs in all standard formats, word clock synchronization, MIDI, and much more.



Cooperative design input from companies such as Mark of the Unicorn, DynaTek, and Steinberg made this all possible. The CBX-D5's modular format also provides a logical upgrade path with the ability to add more tracks, more storage, and more computing power without disrupting, scrapping, or obsoleting the rest of the system.

See the Yamaha CBX-D5 Digital Recording Processor in action at your local Yamaha Dealer or call 1-800-932-0001, extension 500 for more information.



detail of back panel